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Effects of oral and written dialect-shifting instruction on the oral and written word accuracy of African American English-Speaking

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The Effects of Oral and Written Dialect-Shifting Instruction on the Oral and Written Word Accuracy of African American English-Speaking Second Graders

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Abstract

This action research studied the effects of oral and written dialect-shifting instruction on the oral and written word accuracy of African American English-speaking second graders. Participants in this study were urban African American English-speaking second graders, all of whom qualified for free or reduced lunch. The intervention consisted of explicit instruction in phoneme-grapheme matching using dialect-sensitive words with an intervention group (N = 4) while a control group (N = 4) received no outside instruction. A pre- and post-test design was used to assess miscues and self-corrections on an oral reading passage and misspellings on a writing sample and list of dialect-sensitive dictated words. Additional analyses of the miscued, self-corrected, and misspelled words were conducted to determine if any had one of eight features commonly modified in African American English. The intervention took place over four weeks, during which the researcher met with students 4 times per week for approximately 30 minutes per session. Results of the study reflected an increase in all miscues and misspellings for the intervention group, while the control group experienced a decrease in these areas. The data also showed a decrease in all self-corrections for both groups, although the decrease was greater for the intervention than control group. The researcher concluded that a larger sample size, longer implementation of the intervention, and more explicit teaching of the correlation between phoneme-grapheme matching skills and their application in oral reading and writing contexts would have resulted in increased oral and written word accuracy.

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CHAPTER ONE

For several years, I taught in urban schools with predominantly African American populations. At various times, I was a second grade teacher, literacy coach, and reading teacher. In these roles, I experienced first-hand the lag in reading skills of African American students, and noted that many of the English Language Learners (ELLs) and students who received speech/language services had an exceptionally hard time with phonological awareness, phonics, and word accuracy. As I learned more about the decoding process, and the complexity of hearing phonemes and matching them with graphemes when writing a word, I began to wonder about these processes in regards to African American English- (AAE) speaking, ELL, and speech/language students. It seemed logical that a child who did not produce certain phonemes in words would have trouble decoding and writing those words accurately. Also, I knew the report by the National Reading Panel (NRP) (National Reading Panel, 2000) delineated fluency as a critical component of reading, and that accuracy was an aspect of fluency. I questioned the impact of AAE on accuracy, and wondered if this influence created delays in reading achievement by hindering fluency. Moreover, upon reading research on the phonological differences between AAE and Standard American English (SAE) (Craig, Thompson, Washington & Potter, 2003), I was curious how an AAE-speaking child processed a word written in SAE. Finally, I pondered the impact of dialect-shifting and the academic success of students who were able to switch between AAE and SAE when appropriate, to bridge the languages of home and school (Wheeler & Swords, 2004). The question I sought to answer through my action research encompassed my interests in the foundational aspects of reading, goal of increasing my AAE-speaking students' oral and written word accuracy, and curiosity about the impact of dialect-shifting instruction on reading achievement: What is the impact of

oral and written dialect-shifting instruction on the oral and written word accuracy of African American English-speaking second graders?

Connections to Research and the Common Core State Standards

My study measured the word accuracy of AAE-speaking second grade students, but phonemic awareness, phonics, and fluency skills were also factors in the intervention. Phonemic awareness, phonics, and fluency are amongst the components designated by the Common Core State Standards as foundational reading skills. Indeed, the standards for phonemic awareness and phonics begin in kindergarten and fluency starts in first grade; all extend through fifth grade (Common Core State Standards Initiative, 2010). Likewise, phonemic awareness, phonics, and fluency are three of the five components put forth by the National Reading Panel (NRP) as skills necessary for reading proficiency, (National Reading Panel, 2000). My action research was designed to investigate the foundational reading skills of my AAE-speaking participants.

The foundational reading skills of African American students have had the attention of researchers and national organizations for decades, as they probed for solutions to the gap in reading achievement between African American and White students (Flowers, 2007; National Center for Education Statistics, 2009). Studies have investigated the phonological awareness skills (Charity, Scarborough, & Griffin, 2004; Hart, Guthrie, & Winfield, 1980; Thomas-Tate, Washington, & Edwards, 2004), decoding skills and strategies (Hart, Guthrie, & Winfield, 1980) phonemic awareness and manipulation skills (Kohler, Bahr, Silliman, Bryant, Apel, & Wilkinson, 2007; Sligh & Conners, 2003), and fluency skills of AAE-speaking students (Compton-Lilly, 2005). The goal of this action research was to analyze the ways in which

African American second graders used some of these components when reading and writing in the language of school: SAE.

In addition to examining the ways in which AAE-speaking students process the foundational components of reading, researchers have studied the impact that dialect density and dialect-shifting have on reading achievement. Data from various studies indicate a correlation between dialect-shifting and increased achievement in reading (Compton-Lilly, 2005; Craig & Washington, 2004; Craig, Zhang, Hensel, & Quinn, 2009; Fogel & Ehri, 2000; Sibley, Brown, Rogers, Washington, Edwards, MacDonald, & Seidenberg, in preparation; Terry, Connor, Thomas-Tate, & Love, 2010; Thompson, Craig, & Washington, 2004; Wheeler & Swords, 2004). Further research has shown a significant correlation between students' familiarity with the phonology and morphology of SAE and reading achievement (Charity, Scarborough, & Griffin, 2004). Through the intervention lessons in this study, my aim was to create a greater awareness of SAE in my AAE-speaking participants, thus facilitating a shift in their dialect when reading and writing in SAE.

Context, Participants, and Timeline

The participants in this study were AAE-speaking second graders at an urban charter school. Of the 490 students who attended this school, over 98% were African American, with the remaining 2% divided equally amongst Caucasian, Latino, and Asian children. While 88% of the students at this school qualified for free and reduced lunch, all of the children in the study participated in this program, thus designating them as low-SES. The six boys and two girls in this study had an average age of 8 years, 6.5 months and were speakers of AAE, according to the Diagnostic Evaluation of Language Variance screening test (DELV; Seymour, Roeper, & de

Villiers, 2003). In addition, all had achieved scores between 180 and 190 on the Measures of Academic Progress (MAP; Northwest Evaluation Association, 2011). This is within the expected range for second grade students, according to nationally-normed data gathered by the Northwest Evaluation Association (2011). This study was conducted at the students' school during the summer to minimize the effects of classroom reading instruction on the results. I worked with the students for 30 minutes per day, 4 days a week, for 4 weeks. Due to the necessity of a make-up day, we had a total of 15 intervention lessons; pre- and post-assessment days were in addition to this.

Conclusion

To conclude, employing dialect-shifting instruction to increase the oral and written word accuracy of AAE-speaking second graders was the focus of my action research. I hypothesized that word accuracy would increase with instruction that incorporated three foundational elements of reading: phonemic awareness, phonics, and fluency. Through the synthesis of these components into fifteen 30-minute lessons on phoneme-grapheme matching, students practiced skills that would facilitate their shift from AAE to SAE when reading and writing. After the intervention concluded, scores on pre- and post-assessments were used to measure changes in oral reading and written word accuracy. While this research was conducted on one aspect of reading acquisition, word accuracy, the search for a step to narrow the gap in the reading achievement between African American and White students was at the heart of the study.

Definition of Terms

Alveolar Consonants – Consonants, such as ‘t’ and ‘d,’ that are articulated with the tip of the tongue touching the alveolar ridge just behind the upper incisors (Williamson, 2009)

Consonant Cluster Reduction (CCR) – The omission of one or more consonant sounds when amongst a cluster of two or more consonants (Williamson, 2008)

Devoicing Final Consonants (DFC) – Substituting a voiceless consonant for a voiced one following a vowel, such as modifying the /z/ to /s/ at the end of the word “his” (Craig, Thompson, Washington, & Potter, 2003)

Dialect-shift – A shift from one dialect to another that more appropriately suits the situation and communicative purpose; also referred to as code-switching (Wheeler & Swords, 2004)

Fluency – Reading with accuracy, appropriate speed, and expression (Caldwell, 2008)

Grapheme – The smallest written representation of a speech sound (Beck, 2006)

Morphology – The study of word structure (Trumbull & Farr, 2005)

Morphosyntactic – Involving both morphology and syntax (Craig et al., 2003)

Phoneme- The smallest speech sound into which a word can be divided (Beck, 2006)

Postvocalic Consonant Reduction (PCR) – Omission of a single consonant or consonant sound following a vowel; does not apply to consonant clusters (Craig et al., 2003)

Syntax – The rules and patterns that govern the formation of words into grammatical phrases and sentences (Trumbull & Farr, 2005)

Throughout this research, various terms have been used to indicate the language the researcher specifies as African American English (AAE): African American Vernacular English (AAVE); Black English Vernacular (BEV); and Black English (BE). In all instances, these terms indicate the same inventory of phonological, morphological, and combination features. Likewise, the term Standard American English (SAE) is specified by the researcher as the same language others term as Standard English (SE); Mainstream American English (MAE); and General American English (GAE).

CHAPTER TWO: A REVIEW OF THE LITERATURE

The studies in this literature review provide a preliminary base of knowledge on the topic of African American English (AAE) and its relationship to reading success. Research shows that academic achievement scores for African American students are chronically below their non-Hispanic White peers in all content areas (Craig, Zhang, Hensel, & Quinn, 2009). This disparity is in part a function of the low reading achievement of many African American students and researchers are looking for a solution to close this gap. The first section of this review focuses on features of child African American English and examines the prevalence of these features across gender, grade levels, and socioeconomic groups (Craig, Thompson, Washington, & Potter, 2003) Additionally, this section looks at the validity of articulation and reading assessments currently used to evaluate speakers of AAE (Stockman, 2006; Thomas-Tate, Washington, & Edwards, 2004). Next, the review examines the impact of dialect on reading achievement. There are several perspectives on this: one set of researchers focused on the extent to which African American Vernacular English (AAVE)-speaking children are familiar with School English (SE) and the correlation between their degree of familiarity and reading success. Another group of researchers examined the impact dialect had on phonemic awareness and nonword spelling tasks. A third set of researchers analyzed the ability to shift dialect from African American English (AAE) to Standard American English (SAE) and the influence this had on reading achievement scores. The final section of this review also centers on dialect shifting. The researchers in this study discerned the most effective instructional methods for teaching child speakers of Black English Vernacular (BEV) to shift to Standard American English (SAE) in their writing. The articles in this review provide a range of information and stances on raising reading achievement scores for African American students through a more

thorough understanding of their dialect and the differential between that and the SAE.

Features and Prevalence of African American English

Craig, Thompson, Washington, and Potter (2003) investigated the phonological features that characterize the AAE produced by children to understand how it is used in different language and literacy contexts. The researchers recognized a need to know more about the phonological features of child AAE because of the critical role phonological awareness plays in reading acquisition. Knowledge of the differences between child AAE and the SAE students encounter in school would enable teachers to more effectively teach the phoneme-grapheme connection to African American students, ostensibly increasing reading levels. The goal of the study was to create an "inventory of features used by children at different points in development, [and to understand] the course of acquisition of the feature systems, and the sources of systematic variation influencing production of AAE" (Craig et al., 2003, p. 623). Researchers recorded the phonological features that AAE-speaking children produced when reading orally. They noted the use of these features across students to discern how pervasive they were, calculated the production rates with a Dialect Density Measure (DDM; Craig & Washington, 2000), and compared the production rates of AAE phonological features and AAE morphosyntactic features in the same children. The researchers then looked at gender, SES, and grade level to determine if these had a significant effect on dialect density.

The participants in this study were 64 second- through fifth-grade students living in Michigan. All students were typically-developing African American children who spoke AAE and produced two or more features of AAE during a sampling of spontaneous oral discourse. The participants included 29 boys and 35 girls, 19 of whom were from low socioeconomic status (SES) homes, 44 of whom were from middle SES homes. Socioeconomic status was determined

through one or both of the following measures: eligibility for the federally funded free or reduced-price lunch program and the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975). Assessments were administered to assure that all children in the study were within the normal ranges of cognitive and oral language development. The Triangles subtest of the Kaufman Assessment Battery for Children (KABC; Kaufman & Kaufman, 1983) was given to assess general cognitive ability; all participants achieved a score that placed them within the normal range of cognitive development. Oral language skills were assessed with the use of the Peabody Picture Vocabulary Test-III (PPVT-III; Dunn & Dunn, 1997); all subjects were typically developing in this area as well.

For this research, students read passages from the Gray Oral Reading Tests, Third Edition (GORT-3; Wiederholt & Bryant, 1992) in a standardized format. The GORT-3 was given to each student individually in a quiet area of the school, and both student and examiner were audiorecorded through head microphones. The examiner noted all variations from the print and then a DDM was used to calculate the quantity of dialect used by the participant. From the variations noted, the researchers engaged in a multi-step process to distinguish the phonological from the morphosyntactic AAE feature variations generated by each participant. To ensure reliability, “three independent raters re-scored the reading passages produced by 8 participants” (Craig et al., 2003). Interrater agreement was high, 86% and above, for all components scored.

The researchers found that 94% of the students in the study produced AAE features while reading aloud. There were 1,740 instances of variation from print produced by the 60 participants; 21% of these variations, or 373 instances, were identified as AAE features. The mean frequency of occurance was 6.22 for the students who produced AAE while reading orally. The researchers investigated the significance of gender and SES in terms of AAE feature

production, and found that gender did not appreciably influence the results of the DDM. Grade level was also examined as a source of variation, and the study shows that total DDMs varied significantly by grade: the second-grade students produced three times more AAE features than the third-, fourth-, and fifth-graders. Beyond second grade, the DDMs between the other grade levels did not differ significantly. An analysis of the variations from print yielded 9 AAE phonological features, 25 morphosyntactic features, and 8 combination features generated by the students during oral reading. There was a significant difference between second- and all other grades in terms of the phonological and combination features produced: second grade DDMs were two to three times higher than those of the other grades. There was no significant difference in grade level DDM scores for morphosyntactic features. A comparison of DDM scores for the three categories of features reflects that phonological features and combinations were produced with greater frequency than morphosyntactic features; there was no significant difference between frequency of phonological and combination production. Further analysis of feature production results indicates that participants produced all but one of the 9 possible phonological features, approximately half of the 24 possible morphosyntactic features, and all of the 8 possible combination features. A summary of the data shows that over 60% of the 41 phonological, morphosyntactic, and combination features scored in this analysis were produced by the participants; phonological features were more prevalent than morphosyntactic features.

While Craig et al. (2003) studied the complete inventory of phonological and morphosyntactic features of child AAE, Stockman (2006) studied one specific component: final consonant deletions. Stockman was looking to determine if there was an alveolar bias in the deletion of final voiceless stops /-p/, /-t/, and /-k/ as is the case with nasal consonants. The study was motivated by the variable deletion of final consonants in AAE and the need for an

articulation assessment that accurately identifies African American children with articulation delays. Stockman used the following questions to guide her observations: "What is the frequency of /-p/, /-t/, and /-k/ deletion relative to substitutions in the final position of words?" "Does the relative frequency of final /-p/, /-t/, /-k/ deletion vary depending on whether the target consonant occurs in a single or clustered consonant context?" "Does the relative frequency of final /-p/, /-t/, and /-k/ deletion vary depending on whether the target consonant precedes another consonant, a vowel, or is prepausal (the null context) at word boundaries?" (Stockman, 2006, p. 86). Researchers analyzed videotaped recordings of students' speech productions and compared the frequency of deletions of final alveolar stop consonant /-t/, velar stop /-k/, and bilabial stop /-p/ to determine if there was an alveolar bias in consonant deletions.

The participants in this study consisted of 7 African American children (4 girls and 3 boys) between the ages of 32 and 36 months, all of whom lived in homes where AAE was the predominant language, as determined through observation. All children were monolingual native English speakers and were eligible for the Head Start program, which required poverty level income at the time. All children had normal gestational, birth, developmental, and medical histories. Participants met phonetic productivity use criterion for a specific set of consonant singletons in the word-initial position and were developmentally at or above the levels expected for their ages on several measures. Production of initial and final consonant clusters was observed, utterance length was noted, and morphemes were counted and analyzed in order to determine that speech-language status for all participants was typical for their age.

For this study, over 5100 utterances were taken from spontaneous language samples recorded during natural play sessions in the children's home environments. These two-hour sessions had been videotaped previously and archived for a longitudinal/cross-sectional database; the samples

had been elicited and recorded separately for each of the 7 children. To ensure accurate data collection, each child's videotaped speech sample was viewed by two trained professionals and utterances were transcribed orthographically and phonetically in separate viewings. Two measures of point-to-point agreement were made between the two observers, one was 91% and the other 97%, and were based on 11% of four of the seven transcribed speech samples. Further, the findings were comparable across all participants, despite the fact that four had been transcribed by one observer and three had been completed by the other. Software was used to analyze the data on frequency of single and clustered consonant use for final /-p/, /-t/, and /-k/ for each participant and context, and nonparametric statistics were computed for data analysis, due to the small number of participants in the study.

The data revealed that, of the 3,783 words that could potentially end in /-p/, /-t/, or /-k/ pooled from those uttered by the 7 participants, final /-t/ was more often modified than it was present while final /-p/ and /-k/ were more often present than they were modified. While /-t/ was deleted with significantly higher frequency than /-p/ and /-k/, there was no notable difference in frequency of deletion between the latter two stops. Furthermore, deletions were more frequent for /-t/ when it was part of a consonant cluster than were /-p/ and –k/ deletions, with no significant difference in frequency of deletion between the latter two stops. Additionally, the research reflected a greater frequency of final stop deletion for clustered than single consonant contexts for all three stops. However, the only stop that was significantly more vulnerable to deletion in the consonant cluster versus the singleton context was /-t/. Also, the research produced data on deletions of /-t/, /-p/, and /-k/ at word boundaries: the relative frequency of deletion was greatest for /-t/ as both a singleton and part of a consonant cluster; there was no alveolar bias when the final stops preceded a vowel at the word boundary; and there was no

alveolar stop bias in the null or prepausal context, but the null condition actually resulted in fewer /-t/ deletions than /-p/ or /-k/ when in a consonant cluster. Stockman investigated the greater occurrence of final cluster /-t/ deletions at word boundaries than the other stops and found that /-t/ was found in significantly more final clusters than /-p/ and /-k/, and thus was deleted a greater percentage of the time. A summary of the data reflects that, as with nasal consonants, the final voiceless alveolar /-t/ is vulnerable to deletion in both singleton and consonant cluster conditions for child speakers of African American English.

Summary.

The researchers in this section used AAE production and features as the foundation of their research. Craig et al. (2003) compiled an AAE feature inventory, calculated rates of feature production, and looked for relationships between dialect density and gender, SES, and grade level. Stockman (2006), however, chose one feature of AAE, deleted final consonants, as the basis of her research. She looked to see if there was alveolar bias in deleted final consonants, and questioned how the variable production of this feature might impact the validity of current articulation assessments. The work done by these researchers promotes greater understanding of the differences between child AAE and SAE, highlights the need for assessments that will reliably measure the skills of children who speak AAE, and could lead to higher rates of reading success for African American children.

The Effects of African American English on Reading Achievement

While Stockman (2006) challenged the validity of articulation assessments used with children who speak AAE, researchers Thomas-Tate, Washington, and Edwards (2004) questioned the appropriateness of standardized reading assessments administered to this population.

Specifically, they questioned the validity of standardized instruments that measure phonological awareness of low-income African American students. Their goal was to analyze the performance of a group of low-income African American first graders on the Test of Phonological Awareness (TOPA; Torgesen & Bryant, 1994) to discern the assessment's validity. In addition, the researchers examined the relationship between assessments of phonological awareness and assessments of basic reading when administered to African American children. While student performance on the TOPA was the main focus, data was collected from other tests of phonological processing to provide additional information on the participants. The Elision, Blending Words, and Sound Matching subtests of the Comprehensive Test of Phonological Processing (CTOPP; Wagner, Torgesen, & Rashotte, 1999) were given to create a composite score of phonological processing for each participant. Also, the Word Identification and Word Attack subtests of the Woodcock Reading Mastery Tests - Revised (WRMT-R; Woodcock, 1987) were administered to provide a broad measure of each student's basic reading skills. Additionally, the PPVT-III and the Expressive Vocabulary Test (EVT; Williams, 1997) were administered to assess the receptive and expressive vocabularies, respectively, of each child. The researchers felt the vocabulary assessments would be informative due to the significant impact oral language, and vocabulary in particular, has on early reading development.

The participants in this study were 56 African American first graders (25 males, 31 females) ranging from 6 years, 2 months to 7 years, 2 months of age. All students were from low-income families, as determined by their eligibility for free and reduced lunch, and lived in the city of Columbus, Ohio. Additionally, all participants were designated as speakers of AAE by an AAE-speaking speech-language pathologist, and had received direct instruction in phonological awareness through their schools' reading curriculum. Based on teacher reports, all participants

were normally developing first graders, and none had received special education services.

The data collection for this study had several components. First, all participants were determined to be speakers of AAE through their use of the two most frequently used morphosyntactic features of AAE. This determination was made by an AAE-speaking speech pathologist. Next, one of the researchers administered the TOPA to groups of 9-14 students at a time. Additionally, three subtests of the CTOPP, two subtests of the WRMT-R, the PPVT-III, and the EVT were individually administered to participants. This was done by either an African American examiner certified in speech-language pathology, or a speech pathology student at the master's level under the supervision of the aforementioned certified speech pathologist. Student responses were scored according to scoring criteria; raw scores were converted to percentiles and standard scores.

This study yielded significant findings about using the TOPA to assess the phonological awareness skills of low-income African American first graders. The data suggests that the format of the TOPA, for which students are required to identify final consonants, makes it an inappropriate test for African American children, especially those who speak AAE. The mean and standard deviation data for the study participants was significantly lower than the normative mean, corresponding to the 12^{th} percentile on the TOPA normative sample. Further examination of the data showed that more than 90% of the participants scored below the standardized mean, more than 75% scored more than 1 standard deviation below the mean, and scores were not normally distributed but reflected a significantly negative skew. In contrast, the participants scored within the low-average range on the CTOPP subtests and within the average to high range on the WRMT-R subtests. Overall, the first grade students in this study performed most poorly on the TOPA and the best on the WRMT-R Word Identification subtest. To conclude, the data

from this study reveals that the TOPA does not give an accurate picture of the phonological skills of AAE-speaking children because it tests a narrow range of skills, focusing on tasks in which students must identify final consonants.

Interest in the phonological awareness skills of AAE-speaking students drove the research of Thomas-Tate et al. (2004), as it did the study by Hart, Guthrie, and Winfield (1980). They hypothesized that phonological differences between Standard English (SE) and Black English (BE) make it difficult for beginning readers to learn sound-spelling correspondences. Their study focused on the phonological differences between SE and BE and how these differences affected word recognition in beginning readers. They examined a component of BE in which consonant clusters in the final position of a word are simplified or dropped. Such situations create complexities for BE-speaking students in understanding text that their SE-speaking peers, whose speech more closely corresponds to written words, do not encounter. This phenomenon, compounded by grammatical differences between SE and BE, may contribute to the gap in reading achievement between students who speak BE and those who speak SE. The independent variables in this study were words chosen to fit one of three categories: dialect-free, dialect-conflict homonym, and dialect-conflict non-homonym. Dialect-free words were those with a /t/ or /d/ in the initial position, presenting no significant phonological differences between BE and SE pronunciation (such as *dog*). These words also helped the researchers discern the absolute difficulty of /t/ and /d/, as they compared children's responses to initial and final /t/ and /d/ in words. Next, dialect-conflict homonyms included words with /t and /d/ in the final position that are contained in a consonant cluster. Words such as these can have two meanings when pronounced in BE (such as *lass* and *last*), thus creating a homonym situation. Finally, the dialect-conflict non-homonym category was comprised of words that also contained /t/ and /d/ in

a final consonant cluster, but only had one meaning when pronounced in BE (such as *dust*). The dependent variable in this study was the number of incorrect matches (designated by affirmative or negative) made by the participants. Thus, this was a 3 groups x 3 treatment conditions x 2 response modes research design.

The participants in this study were 45 White and Black first graders from Delaware. This included 15 low-SES and 15 middle-SES White children from a coastal city in the southern portion of the state, and 15 low-SES Black children from an inner-city, all-Black school. The designation of SES for all children was based on the Hollingshead index (Hollingshead, 1975). The mean age of the children was 6.8 years for the low-SES White students, 6.7 years for the middle-SES White students, and 6.7 years for the low-SES Black students. All children were reported to be within the normal range of reading achievement according to their teachers, and participation in the study was voluntary. Speech samples from each of the Black children were examined for features of BE, which revealed a high prevalence of the -s third-person singular, -s possessive, and word-final consonant cluster deletion features. No speech samples were taken from the White children.

The study was conducted by two female experimenters. A White female worked with the low- and middle-SES White children and a Black female worked with the low-SES Black children. In order to collect speech samples, the Black experimenter asked the Black children to describe a familiar scene in a picture; their speech samples were recorded on a tape recorder and analyzed for markers of BE. Again, no speech samples were taken for the White children. For the word-matching portion of the study, the examiners worked with individual students and began with five practice items to familiarize them with the task. All students completed the practice items successfully, showing they understood how to match the features of a word to its

sounds. Then, the examiner spoke eight words aloud for each of the three categories (dialect-free, dialect-conflict homonym, and dialect-conflict non-homonym) while simultaneously showing the participant the corresponding written word. The experimenter pronounced the word in SE for four of the eight words, thus creating a match between the spoken and written words. For the remaining four words, the experimenter left off either the final consonant (for dialect-conflict words) or the initial consonant (for dialect-free words), thus creating a mismatch between the spoken and written words. For the 8 items in each category, the student participant was asked to say "yes" if the spoken and written words matched and "no" if they did not. Immediately following the word-matching task, each participant was given a decoding assessment. For this, (s)he was shown the same word cards as in the matching task and asked to say the word aloud. The student was encouraged to guess or to get portions of the word if (s)he encountered difficulty, and all participants were given positive reinforcement after each word. The experimenter checked off words that were pronounced correctly and phonetically transcribed the miscues.

The results of this study show that phonological differences between SE and BE, specifically the occurrence of simplified final consonant clusters, does not affect a child's ability to match spoken and written words. An analysis of the auditory-visual matching task reflected similar scores for all three groups, indicating that neither SES affiliation nor dialect impacted this component of beginning word recognition. In fact, all participants exhibited more difficulty matching words with final consonants, both conflict/homophones and conflict/non-homophones, than with initial consonants in the critical position. However, the results of the decoding test reflected a significant group effect: the middle-SES White children pronounced more words correctly than the low-SES White children, who in turn pronounced more words correctly than

the low-SES Black children. The researchers wanted to calculate the probability of a child correctly decoding a word, so they created a ratio of number of words correctly decoded to the number correctly matched for each participant. This analysis reinforced the previous data: the middle-SES White children were more successful at decoding (89% accuracy) than the low-SES White children (61% accuracy), who were more successful than the low-SES Black children (36% accuracy). Thus, while all participants were able to correctly match a word when spoken by an examiner, they were group differences when it came to the child's own decoding. There was a greater probability that a middle-SES White child would correctly decode a word they had accurately matched than a low-SES White child, and a greater probability for the low-SES White child than the low-SES Black child. Further examination of the decoding errors showed that the low-SES Black children used different decoding strategies than the low-SES White children (the middle-SES White children had so few decoding errors that the comparison was only made between the other two groups). For example, the low-SES White participants often decoded all of the consonants in a word correctly, but had difficulty with the vowel. However, the low-SES Black children first looked at the initial consonants to help them decode the word and went next to the initial and final consonants as a strategy for reading the word. This demonstrated the Black participants' orientation to initial, instead of all, consonants. Overall, the researchers found that neither the phonological differences between dialects nor SES affected participants' ability to match spoken and written words. All children in the study made errors that reflected their limited experience with final consonants when compared with initial consonants. However, the researchers discovered significant differences among groups on decoding, in that the BE speakers relied on fewer cues to help them read a word than their low- and middle-SES White counterparts.

African American English and its impact on early reading skills was the focus of studies conducted by Thomas-Tate et al. (2004), and Hart et al. (1980). Likewise, Kohler, Bahr, Silliman, Bryant, Apel, and Wilkinson (2007) investigated the extent to which AAE impacts the acquisition of early reading skills. They wondered if children who spoke AAE manipulated parts of the phonological code differently than children who spoke General American English (GAE). To investigate this, they looked at high and low dialect use as a function of performance for first- and third grade, low-income, AAE-speaking children on spelling and phonemic awareness tasks. They sought answers to three questions in their investigation: do dialect density and grade affect the phonemic processing abilities of children who speak AAE? Is there a correlation between the degree of dialect density and nonword spelling scores for first and third grade students? What are the frequencies and types of AAE phonological features children produce on a nonword spelling task? The units of analysis in this study were students' scores on a measure of syntactic development; scores on a measure of frequency and type of AAE phonological patterns produced during an elicited narrative; scores on a measure of phonemic awareness; and scores on a measure of nonword spelling ability.

The participants in this study were 80 African American students in first- and third grade, including 15 boys and 25 girls in first grade, and 21 boys and 19 girls in third grade. These students attended one of three urban Title I schools in low-SES areas of West Central Florida. All participants were normally-developing children, free of vision and hearing deficits, who spoke AAE; all scored within the average range on a measure of syntactic development.

Data for this study was collected between October and January of a single school year. Examiners tested students individually in a quiet room in their elementary school over two sessions. First, students were screened for eligibility on measures of syntactic development and

dialect density. One week later, eligible students took the CTOPP and nonword spelling measure. To ensure reliability of data, efforts were made to reduce the influence of examiner race; no correlation was found between the race of the examiner and students' dialect production. To ensure reliability of scoring, 10% of the narratives were chosen for interexaminer agreement; one variable scored at 82.7% reliability and the rest scored at 89.9% and above. Interexaminer agreement on the nonword spelling tests were also high: 86% for first grade scoring and 92% for third grade scoring.

The study revealed that dialect impacts phonemic awareness tasks less than nonword spelling tasks. Grade level made up 20% of the variance in the phonological score after factoring in the effect of dialect: first graders outscored third graders on two of the phonemic awareness tasks. Further, dialect did not significantly influence elision scores, but did impact students' performance on blending words. Additionally, there was no significant correlation between dialect and spelling in the first graders. However, there was a significant correlation between dialect density and nonword spelling scores for the third graders. Children who produced a high volume of AAE used more dialectal patterns in their spelling than those who produce less AAE. This indicates that, in some children, dialect interferes with the phoneme-grapheme connection necessary to spell words with conventional GAE spelling.

As Kohler, et al. (2007) investigated the impact of dialect on children's performances on tasks of phonological processing, so did Sligh and Conners (2003). They compared the differences between speakers of AAVE and SAE on phonological tasks, and examined the "relation between phonological processing and reading in AAVE speakers relative to SAE speakers" (Sligh & Conners, 2003, p. 210). The researchers were particularly interested in comparing the performance of speakers of AAVE and those of SAE on four types of phoneme deletions: word-

initial/outside, word-initial/inside, word-final/outside, and word-final/inside. Their hypothesis was that outside deletions would be easier to perform than inside deletions, and that speakers of AAVE would have more difficulty analyzing and manipulating word-final deletions than speakers of SAE, as word-final consonant clusters are often reduced in AAVE. For this research, the Sligh and Conners did both a preliminary and main study. In the preliminary study, they looked at existing data on a phoneme deletion task that had been administered to African American and Caucasian children. In the main study, the researchers made refinements to the research design of the preliminary study with regards to classifying students by dialect, task, and matching factors.

The participants in the preliminary study were residents of Alabama and were either Caucasian (14 boys and 15 girls) or African American (10 boys and 19 girls). They ranged in age from 7 to 11 years and all attended public schools. Most of the children (53 of the 58) attended schools that served low to middle socio-economic neighborhoods, and the remaining 5 students attended schools that served middle to upper socio-economic neighborhoods. However, no further data on their socioeconomic status was available. Participants were matched transracially with someone of similar age and ability with respect to reading recognition, resulting in 29 matched pairs. All participants were required to demonstrate their ability to hear and accurately repeat 50% or more of the words in a phoneme deletion task before being accepted for the study. The participants in the main study were residents of Alabama, native English speakers, and average readers who ranged between 7 and 8 years old. These 30 speakers of AAVE (15 boys, 15 girls, all African American) and 30 speakers of SAE (14 boys, 16 girls, all Caucasian) were matched trans-dialect with someone of similar age and reading ability. All participants in the main study went to schools that drew from neighborhoods with similar

socioeconomic demographics; mean SES ratings for these students corresponded with identification in the working class.

For the preliminary study, participants' reading was measured using reading recognition and comprehension subtests from the Peabody Individual Achievement Test-Revised (PIAT-R; Markwardt, 1989). These were administered and scored using standard procedures. The phoneme deletion task was pre-recorded in SAE and played for participants while the experimenter observed and recorded their responses. This included 24 core items, all of which involved deletion of a consonant from within a consonant cluster. The items were divided equally amongst those that required word-initial/outside, word-initial/inside, word-final/outside, and word-final/inside deletions. Eight of the 12 word-final items involved consonant clusters commonly reduced in AAVE, and two involved clusters that might have a different pronunciation in AAVE. All word-initial deletion items involved consonant clusters that are similar in AAVE and SAE. For the main study, the researchers first obtained a speech sample from each participant and analyzed these to determine whether the students were speakers of SAE, AAVE, or Other. Inter-rater reliability for dialect classification was conducted on approximately 25% of the sample, and resulted in 100% correspondence. Data from participants designated as either SAE or AAVE was included in the study while data from those designated as Other was excluded. In addition, each participant's SES rating was determined through the Total Socioeconomic Index (TSEI; Steven and Cho, 1985). Next, participants completed two phoneme deletion tasks as well as the Reading Recognition and Reading Comprehension subtests of the PIAT-R; the scores for the subtests were averaged and used as a measure of reading. As in the preliminary study, the first phoneme deletion task was conveyed in a pre-recorded SAE female voice, beginning with instructions and an interactive demonstration. Next, six practice

trials were presented, followed by feedback for the participant and repetition of trials, as needed. This was followed by 24 trials divided equally into four types, as in the preliminary study: word-initial/outside deletions, word-initial/inside deletions, word-final/inside deletions, and word-final/outside deletions. Further, item types were ordered randomly and were balanced with regards to the number of phonemes per word. Also, the nonwords used in these trials became real words when the phoneme was deleted. In contrast to the practice portion, students were not given feedback with these trials. The second phoneme deletion task was similar to the first, except that different items were used and the deletions did not necessarily result in the creation of two real words. The twelve word-final deletion items included seven with consonant clusters that tend to be reduced in AAVE, and two with consonant clusters that might be pronounced differently in AAVE than in SAE. The twelve word-initial deletion items all utilized consonant clusters that are pronounced similarly in AAVE and in SAE. Total testing time for each participant was between 30 and45 minutes.

The results from both the preliminary and main studies reflect similar findings, albeit to different degrees. In the preliminary study, the researchers found support for their hypothesis that, in general, outside deletions would be easier than inside deletions. They also proposed that SAE speakers would be stronger than their AAVE- speaking counterparts at word-final deletions relative to word-initial deletions. While the African American and Caucasian children performed similarly on the word- initial and word-final deletions, the Caucasian children scored better on outside word-final deletions than on word-initial deletions. The data also showed a significant correlation between phoneme deletion and reading for both groups, however it was slightly higher in the Caucasian group. In the main study, after making significant improvements to the methodology used in the preliminary study, the researchers found clear support for their

hypothesis that outside deletions would be easier than inside deletions. Both the African American and Caucasian participants had significantly greater success with outside deletions than inside deletions on both phoneme deletion tasks. The study also reflected that the SAE speakers did better on word-final deletions than word-initial deletions for both tasks, while the AAVE speakers were just the opposite: they did better on word-initial than word-final deletion tasks. An analysis of variance (ANOVA) was done to determine the effects of dialect, cluster place, and word place on the phoneme deletion tasks in the main study. This revealed a significant main effect for Dialect, in which the AAVE speakers performed more strongly than the SAE speakers. Also, Cluster Place was found to have a significant main effect, and inside deletions were recognized as more difficult than outside deletions. In addition, Word Place was found to have a marginally significant main effect: word-final deletions were determined to be slightly more difficult than word-initial deletions. However, this was only when they were inside deletions, as there was a significant Word Place x Cluster Place interaction. Finally, a significant Dialect x Word Place interaction was found, where SAE speakers did better on word-final than word-initial deletions and AAVE speakers did significantly better on word-initial than word-final deletions. After analyzing the data, the researchers concluded that the phonological differences between AAVE and SAE were reflected in the data from the word-final and word-initial deletion tasks: “specific aspects of phonological processing depend on phonological features of one’s dialect/language” (Sligh & Conners, 2003, p. 223). Further, the stronger correlations between phoneme deletion and reading measures for the SAE speakers relative to the AAVE speakers suggest that dialect has an effect on the degree to which phoneme deletion predicts reading ability. Sligh and Conners postulated that, while the AAVE speakers did significantly better in phoneme deletion, they would benefit from work focusing on word-final consonant clusters.

This research also highlighted the challenge in accurately identifying those AAVE speakers who are at risk for future reading difficulties.

Researchers Thomas-Tate et al. (2004), Hart et al. (1980), Kohler et al, (2007), and Sligh and Conners (2003) focused on the correlation between AAE, phonological skills, and reading achievement, while Charity, Scarborough, and Griffin (2004) took a slightly different stance with their research. They explored the connection between AAVE-speaking students' familiarity with Standard English (SE) and reading achievement. They hypothesized that AAVE-speaking children who begin school with more knowledge of SE have an advantage over their peers who are less familiar with it. There were three units of data analysis in this study: the degree of familiarity with SE; the correlation between familiarity with SE and reading achievement; and the correlation between knowledge of SE phonological and morphosyntactic features and reading achievement. Students were given a sentence imitation task to measure their degree of familiarity with SE. Also, examiners administered three subtests of the WRMT-R to determine their level of achievement in those skills. Finally, the researchers used this data to determine if there was a relationship between knowledge of SE phonological and morphosyntactic features and reading achievement.

A total of 217 students participated in the study; all were African American children in kindergarten through second grade. These students attended low-performing schools in low-income communities in one of three U.S. cities: Cleveland, Ohio; New Orleans, Louisiana; and Washington, D.C. A random sample of students was taken from each kindergarten, first, and second grade class at two schools in each city, and approximately equal numbers of boys and girls were included at each grade level. While the proportion of students eligible for federal free or reduced lunch was high in all three cities, there was some variance in SES across schools.

Nearly all students in the two New Orleans schools were eligible for the free and reduced lunch program (94% and 100%), while the schools in Cleveland and Washington, D.C. reflected a greater differential (84% and 100% in Cleveland, 74% and 94% in Washington D.C.).

The researchers collected the data for this study in April, May, and June of the 2000-2001 school year. The assessments were administered by 11 experienced reading teachers, 8 of whom were African American and 3 of whom were White. All examiners were trained to administer the assessments in a uniform way. Further, all testing was conducted individually and in quiet areas of the children's schools. The assessments were completed in one or two 15-30 minute sessions per student, and audiorecorded for accuracy in transcribing. First, three subtests of the WRMT-R were administered to assess students' skills in various areas of reading: Word Identification, Word Attack, and Passage Comprehension (this subtest was not given to the kindergartners). Additionally, dialect-sensitive scoring was used with the Passage Comprehension subtest. Next, for the sentence imitation task, the examiner presented a sentence and the child was asked to repeat it immediately, saying it exactly as the examiner had. To clarify the instructions, two or more practice sentences were given first. To ensure reliability, two scorers independently coded 40% of the sessions; all items for which there was less than 80% agreement were eliminated. After collecting this data, three summary scores were calculated for each student: degree of familiarity with SE; correlation between familiarity with SE and reading achievement, and correlation between knowledge of phonological and morphosyntactic features of SE and reading achievement. Additionally, students completed a story recall task to determine if there was a correlation between dialect differences and comprehension.

The research of Charity et al. (2004) indicates that reading achievement is significantly correlated with students' familiarity with SE. First, while there were no differences related to SES for story recall or memory, the data reflected that SES differences impacted the phonological and grammatical scores: the schools with the largest low-SES population had the lowest scores on phonological and grammatical measures. From this study, the researchers concluded that familiarity with SE is related to SES, and that students who grow up in African American homes and communities have fewer opportunities to become familiar with SE.

Summary.

This section highlights research that focused on how the phonological and morphological differences between AAE and SAE impact reading assessment and achievement. Researchers Thomas-Tate et al. (2004) questioned the validity of phonological skills assessments administered to child speakers of AAE. They examined one such assessment, the TOPA, and looked at the relationship between this assessment and measures of reading. Similarly, Hart et al. (1980) hypothesized that making sound-spelling correspondences was more difficult for speakers of BE, due to the phonological differences in SE and BE. They concentrated their research on students' phonological awareness of final consonant clusters, which are commonly simplified or deleted in BE. Likewise, Kohler et al. (2007) looked for differences in how AAE- and SAE-speaking students manipulate the phonological code, and explored the effects of dialect density on performances of phonemic awareness and spelling tasks. Further, Sligh and Conners (2003) looked at phonological processing, and compared the performance of AAE and SAE speakers on phonological tasks and measures of reading achievement. Finally, Charity et al. centered their work on both the phonological and morphological components of AAE, and the degree to which familiarity with SE affects the reading achievement AAE-speaking students.

The research in this section reflects the significant affect AAE has on the skills necessary for reading achievement, such as phonological awareness, phoneme manipulation, decoding, and matching phonemes to corresponding graphemes. This information can be utilized to foster strong reading skills and strategies in students who speak AAE.

Dialect-Shifting and Its Impact on Reading Achievement

The researchers in section 2 focused on the phonological and morphological differences between AAE and SAE, and how these affect reading achievement, while Catherine Compton-Lilly (2005) looked at the ability to dialect-shift and how this impacts reading success. Compton-Lilly was curious about the relationship between African American Vernacular English (AAVE) and learning to read, particularly with regard to the language found in books. She observed the reading behavior of one of her African American Reading Recovery students, recorded the student's miscues during oral reading, and qualitatively analyzed these miscues. Compton-Lilly recorded the miscues on running records per Reading Recovery procedure, and used the miscues as the basis of instruction for the lesson. After the lesson, Compton-Lilly examined the running records more extensively and categorized the miscues for further analysis.

The participant in this study was an African American first grade girl. She was a speaker of AAVE and lived with her father and grandmother, also speakers of AAVE. No socioeconomic data was given for the participant, nor was there information about where she lived, nor her academic abilities in areas other than reading. This first grade student was in the Reading Recovery program due to delays in her reading skills, and was characterized by Compton-Lilly as "an excited young reader who moved quickly through Reading Recovery" (Compton-Lilly, p. 50, 2005).

Data on the student was collected during the 20 weeks of the Reading Recovery program. Compton-Lilly taught these 80+ lessons one-on-one for 30 minutes a day. During the oral reading portion of the lesson, running records were taken of the student's efforts, and miscues were recorded. The miscues informed Compton-Lilly's instruction during the latter part of the lesson, and were further analyzed at a later time. In the analysis, Compton-Lilly looked for instances in which the student switched from "book language" (Compton-Lilly, 2005, p. 43) to AAVE, noted whether the student monitored and corrected herself when her reading deviated from the text, and categorized the miscues according to linguistic features of AAVE. For example, Compton-Lilly noted the student deleting the *s* on third person singular verbs, deleting possessive *s*'s, regularizing verb structure by changing *were* to *was,* and changing final consonants, among other features that contrast with SAE.

This case study resulted in a range of quantitative and qualitative data, from which Compton-Lilly drew significant conclusions about dialect-shifting and learning to read. First, the data showed substantial growth in the subject's reading skills over the course of the Reading Recovery program. In fact, she reached a level of reading that was commensurate with her classmates by the end of the 20 weeks. Further, the increase in her self-corrections indicated that she had honed her ability to hear, identify, and make corrections to her AAVE language patterns when they differed from the SAE language typically found in books. Additionally, Compton-Lilly noted that her student consistently made meaning from the text and used the linguistic resources available to her, as proficient readers do. However, Compton-Lilly felt that her subject found it challenging to utilize the information on the page, written in SAE, to match her oral reading to the text because her AAVE oral language patterns did not provide all of the syntax support necessary to read school text. In fact, Compton-Lilly felt the girl had to actively

suppress her AAVE syntax in order to read text in SAE. Furthermore, Compton-Lilly noted inconsistencies in her student's dialect-shifting, as AAVE language patterns appeared in her oral reading after she had demonstrated the ability to shift to SAE. Consequently, Compton-Lilly felt there were times when the first grader's engrossment in the story superseded her ability to monitor herself and match her language to the text. Also, she felt that 20 weeks of intervention was not enough time to expect consistent dialect-shifting from a student. Additionally, Compton-Lilly concluded that qualitative analysis of running records is essential, as it enables teachers to discern the type and significance of miscues, and that overcorrecting of linguistic variations actually inhibits dialect-shifting. Finally, she confirmed that a classroom rich in language models, with a quality teacher who honors students' home languages, fosters the ability of students to shift from AAVE to SAE when necessary, thus increasing their opportunities for success in mainstream society.

While Compton-Lilly (2005) studied the dialect-shifting and reading achievement of one student, researchers Craig and Washington (2004) looked at dialect-shifting and its correlation to reading success with a large number of children. In their study, they examined AAE feature profiles as delineated by grade, compared these profiles across grades, and looked at the differences in density of AAE feature production by grade level. Additionally, they investigated the relationship between dialect density and reading achievement. To gather data for this study, examiners collected a language sample from each participant during a picture description task. Then, recordings of these language samples were transcribed orthographically using the Coding for Human Analysis of Transcripts (CHAT) conventions of the Children's Data Exchange System (CHILDES; MacWhinney, 1994) and the transcripts were coded for AAE feature types. Transcripts of the first through fifth grade students were coded for morphosyntactic,

phonological, and combination feature types, while transcripts of the preschoolers and kindergartners were coded for morphosyntactic features only. Next, four AAE dialect density measures (DDMs; Craig, Washington, & Thompson-Porter, 1998) were calculated for each student: morphosyntactic; phonological; combination of morphosyntactic and phonological; and total AAE, the sum of all features produced. Finally, the researchers looked at state and national standardized reading achievement tests to study the correlation between reading achievement and AAE feature use. These included the Iowa Tests of Basic Skills (Hoover, Dunbar, & Frisbie, 2001); TerraNova (1997); Metropolitan Achievement Tests (1993); and the mean of the Story and Informational subtests from the Michigan Educational Assessment Program (1999-2001).

The participants in this study were 178 boys and 222 girls, all African American, for a total of 400 children from preschool through fifth grade. Of these students, 160 resided in a midsize central city in Michigan and 240 lived in an urban-fringe community of metropolitan Detroit. In the midsize central city, African Americans comprised 16% of the student body, whereas in the urban fringe community they represented 70% of the student body. Of the 400 participants, 150 were from low-SES homes and 250 were from middle-SES homes, as determined by their eligibility for free or reduced-price lunch. All students in the study were deemed typically-developing, based on the following: the judgment of their teachers and parents; lack of history of referral for speech and language services; lack of history of special education services; and lack of articulation difficulties. Additionally, all students scored within 2 standard deviations of the mean on the Triangles assessment of cognitive skill from the Kaufman Assessment Battery for Children (KABC; Kaufman & Kaufman, 1983) and the Peabody Picture Vocabulary Test-Third Edition (PPVT-III; Dunn & Dunn, 1997). Students with no score for the PPVT-III were judged by their teachers to be performing similarly to their peers.

The data for this study was taken from language samples produced during an untimed picture description task. In a one-on-one setting, examiners presented three pictures in random order and asked students to tell them as much as they could about each picture, giving additional prompts when necessary. These sessions were audio-recorded for later examination. As the study involved an African American and a White examiner, the researchers analyzed the DDMs to see if the race of the examiner impacted total DDM scores. It was determined that there was no effect for race of the examiner on total DDMs. After the language samples were collected, they were transcribed orthographically using standards of the Children's Data Exchange System (CHILDES; MacWhinney, 1994). Later, approximately 30 percent of each language sample was retranscribed by an independent observer to establish transcription reliability, resulting in transcription agreement of 97% for morphemes and 93% for phonemes. Then, the transcripts were coded for the three AAE feature types and four DDMs were calculated. These included morphosyntactic, phonological, combination, and total AAE features. To ensure reliability of coding, 10% of the language samples were recoded for AAE features by an independent observer, resulting in agreements of 99% for morphosyntactic types; 85% for morphosyntactic tokens; 98% for phonology types; 99% for phonology tokens; 98% for combination types; and 85% for combination tokens. Finally, the various standardized reading achievement test scores were converted to z scores to enable comparison across tests.

The research in this study resulted in significant findings about the relationships between AAE production, grade level, and reading achievement. First, an ANOVA was used to examine the DDMs with regards to grade (seven levels), community type (two levels), SES (two levels), and gender (two levels). No significant interaction effects were found relative to grade, community, SES, or gender, nor were main effects found for SES or gender. However,

significant main effects were found for community and grade. The students from the urban fringe community produced approximately twice the morphosyntactic features produced by the students from the midsize central city. Further, while there was no significant difference in the morphosyntactic DDM (MorDDM) scores of preschoolers and kindergartners, and first through fifth graders, there was a significant difference between the preschool-kindergarten group and the first through fifth grade group. The data shows a shift of one morphological feature per ten words for preschooler-kindergarten group to one morphological feature per 26 words for first through fifth grade group. The data also reflected that, up to first grade, MorDDM scores were comparable, then dropped significantly, and then remained relatively stable through fifth grade. While there was a decrease in the density of morphosyntactic features produced, there was an increase in the types of features that were produced across grades. Of the morphosyntactic features produced by at least 25% of the participants at each grade level, the first graders used three types, the second and third graders used six, and the fourth and fifth graders used eight different types. This differs from phonological features, for which the same five types were produced at a rate that remained steady across grade levels. Next, clusters of dialect density were determined across individual participants regardless of grade level, based on morphological features produced. These clusters were delineated as low, moderate, high, or very high levels of dialect density. The data showed that the students from the midsize central city were more likely to be in the cluster of low dialect density than students from the urban-fringe community (86% and 54% more likely, respectively). Finally, these clusters were collapsed into two groups and used to determine a correlation between dialect density and reading achievement. The low AAE cluster was comprised of 68% of the participants and designated as the dialect-shifting group, and the moderate to very high cluster was comprised of 32% of the participants and recognized

as the non-shifting group. The scores on standardized tests of reading achievement for these groups were compared and found to be significantly different. Scores for the dialect-shifting group were approximately 6 times higher than those of the non-shifting group. Furthermore, scores from the PPVT-III were compared and the dialect-shifting group had significantly higher scores again. In conclusion, the data from this study indicate several key things: community and grade level impact the variable production of AAE; there is a distinct decline in dialect density between kindergarten and first grade; and dialect and the ability to dialect-shift impact reading and vocabulary achievement.

Craig and Washington (2004) focused on the differences in dialect density and AAE features by grade level, while as the team of Thompson, Craig, and Washington (2004) they investigated the differences between AAE produced in reading and writing contexts and that produced in spoken discourse. The researchers examined the characteristics of AAE during spoken discourse, reading, and writing, and looked for "significant differences in the patterns of feature usage" in each context (Thompson, Craig, & Washington, 2004, p. 271). To gather data, samples were collected during the administration of three randomly-ordered linguistic tasks: a picture description, an oral reading assessment, and a writing task. The examiners, African American and Caucasian graduate and undergraduate students, were trained in collecting language samples and were assigned to participants based on availability. The three samples were collected in a single sitting of approximately 60 minutes. These samples were examined and scored using two measures of dialect: a DDM and an index of morphosyntactic and phonological features of AAE (Craig, et al., 2003; Craig & Washington, 2000; Washington & Craig, 1994, 2002). Four DDM scores were calculated separately for each sample, based on the frequency of AAE type produced and divided by the total number of words in the sample: total

number of features, phonological features, morphosyntactic features, and combinations of phonological and morphosyntactic features. For the picture description task, during which oral language productions were collected, participants were given a prompt and unlimited time to describe three color action pictures presented in random order. These samples were transcribed orthographically and segmented into C-units for analysis. They were then examined for frequencies of AAE tokens produced, for which the scores were calculated manually. For the oral reading task, examiners individually administered the Gray Oral Reading Tests-Third Edition (GORT-3; Wiederholt & Bryant, 1992) using standardized procedures. The tests were timed per the administration manual and audio-recorded to collect the oral reading samples. The samples were then scored for AAE tokens and types, and totals were calculated manually. For the writing task, examiners instructed students to write a story that had a beginning, middle, and end, and allowed the participants to choose the topic. As with the picture description task, this task was untimed. The written samples were analyzed and the number of C-units per sample and frequencies of AAE types and tokens were calculated.

The participants in this study were 50 African American third-graders: 26 males and 24 females. All participants had a history of typical development, including cognitive and language skills, with no referrals to or services from special education. In addition, all were speakers of AAE and resided in either an urban-fringe area of Detroit (with 75% African American enrollment in the district) or a middle-sized central city in Michigan (with 15% African American enrollment in the district) with varying levels of SES. Socioeconomic status was determined by eligibility for free or reduced lunch by the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975).

The researchers took several steps to ensure reliability of data: First, a one-way ANOVA was done to determine whether examiner differences impacted AAE production in participants. No significant differences were found in any of the contexts (picture description, oral reading, and writing). In addition, reliabilities were conducted by three independent observers who had extensive backgrounds in linguistics, along with training in the AAE coding system. Approximately 10% of each language sample was retranscribed by one of the independent observers, resulting in high transcription and C-unit reliabilities (97% and 96% respectively). Coding agreements for AAE types and tokens were also high, at 100% and 92% respectively. Administration of the GORT-3 was also examined for reliabilities, with an independent examiner re-scoring approximately 10% of the assessments. This resulted in interrater agreement of 90% for the presence of reading variation, 100% for distinguishing AAE features from non-AAE features, and 100% for indentifying AAE types and tokens. Further reliabilities were established for the written samples, resulting in 93% point-to-point agreement for C-unit segmentation, 99% transcription reliability, and 100% interrater coding agreement for AAE types and tokens.

The data from this study revealed significant findings about the capacity of African American third graders to shift their dialect in different contexts. First, the researchers found that 100% of the students produced variable but significant amounts of AAE during the picture description. The data from this task reflected an average of one AAE feature for every 11 words spoken, and at least one feature per sentence. Further, the researchers found that neither SES nor gender contributed to the wide variation in AAE produced during the picture description, but community did. The students who lived in the urban fringe community, where African American children comprised the majority culture in the school, produced greater levels of AAE than those from the middle-sized central city, where African Americans represented only a small portion of the

student body. Also, the data showed that both morphosyntactic and phonological features were evident in the picture descriptions, with phonological features produced in significantly higher numbers. Additionally, the data from the oral reading samples reflected that 92% of the students produced AAE while reading text in SAE, representing an 8% drop in AAE from the oral language samples. Further, it was determined that there was no systematic variation in AAE produced due to SES, gender, or community. As evidenced in the oral language samples, phonological features were produced in far greater numbers than morphosyntactic markers during the oral reading task. Also, combinations between phonological and morphosyntactic features were produced during this task, which did not occur during the picture description. Finally, the data showed that 62% of participants produced AAE during the writing task, reflecting a 38% decrease from the oral picture description. Indeed, 38% of the participants who used AAE during the oral reading task produced zero features during the writing task. The data revealed that phonological, morphosyntactic, and combination features were produced during the writing task, and there was no impact on variability stemming from SES, gender, or community. In contrast to the two other contexts, morphosyntactic features were the predominant AAE elements produced in the writing task. Thus, while AAE was produced in all three contexts, there was a decrease from the amount produced in the oral language to the oral reading task, and a significant drop from the oral language to the writing task. The data from this study led the researchers to conclude that a child's propensity to dialect-shift may depend on the context, and that the best opportunity to support the skill of dialect-shifting may be through writing.

Thompson, Craig, and Washington (2004) examined AAE production in writing as one aspect of their research on dialect-shifting, as Craig, Zhang, Hensel, and Quinn (2009) investigated the correlation between dialect density and written word production, the implications therein for

dialect-shifting, and the possible relationship between this and reading achievement. The researchers hypothesized that students who spoke AAE would produce less AAE in their writing, indicating the ability to shift their dialect. They further postulated that there would be an inverse relationship between AAE frequency production and reading achievement scores (Craig, Zhang, Hensel, & Quinn, 2009). In this study, the researchers controlled for SES, general oral language skills, and writing skills. The frequency and rate of AAE feature productions on oral and written samples were their units of analysis. Scores on various standardized tests of reading achievement were used to measure students' reading achievement; these scores were used to determine if there was a relationship between reading ability and AAE, SES, nondialectal oral language, and writing skills (Craig, Zhang, Hensel, & Quinn, 2009).

The participants in this study were 165 African American students between first and fifth grade residing in Southeastern Michigan. Approximately one-half of the participants were girls and one-half were boys; about one-third were from low-SES homes and two-thirds were from middle-SES homes, as determined on the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975). All students in the study were typically-developing, based on their lack of special service referrals and performance within the normal range on the Triangles assessment of cognitive skill. In addition, all children were speakers of AAE.

The participants in the study were given a standardized test of reading achievement, and later produced both an oral and a written narrative. To generate the oral language samples, students were shown a series of three pictures and prompted to tell about them with no limit on time. Both the student and examiner wore head microphones for this task and were audio recorded. To produce the writing sample, students were asked to write a story about a topic of their choice and instructed to include a beginning, middle, and end. This untimed task was designed to produce

something comparable to the oral narrative elicitation. Upon finishing their writing, the students were instructed to read their story aloud while they traced their finger along the text; this was videotaped to aid in transcription. After the oral and written narratives were transcribed, the AAE features produced in them were identified and coded, and DDMs were calculated for the narratives. Students' nondialectal oral language skills were also assessed using a variety of measures, and the results were standardized within grades to remove the effect of grade level. Writing skills were evaluated based on seven core writing skills and five developmental levels; due to the significant variance between grades, these scores were standardized by grade for use in subsequent analyses (Craig, Zhang, Hensel, & Quinn, 2009). To ensure reliability, independent observers retranscribed 10% of the oral and written narratives; the reliability of the scoring was found to be within the acceptable range. The oral and written samples were also recoded for AAE features to ensure reliability of coding. Coding agreement was 93% and above for the oral samples and 91% and above for the written samples, indicating a high level of reliability.

The results of this study reveal several things about oral language, written language, dialect shifting between the AAE and SAE, and the relationship between reading achievement and dialect. The researchers found that oral narratives elicited a greater number and diversity of words from students than did the written narratives, although there was no significant difference in the grammatical complexity of the two (Craig, Zhang, Hensel, & Quinn, 2009). They also found a relationship between SES and reading achievement, but no relationship between reading achievement and gender, in the study participants. In addition, oral DDMs did not vary with gender, but did correlate with SES. Also, there was a significant difference in DDMs between the oral and written narratives, indicating that students shifted their dialect from more frequent

AAE in oral language to less AAE in written narratives. Thus, the researchers' hypothesis was confirmed: the higher the AAE feature rate in oral or written language, the lower the reading score (Craig, Zhang, Hensel, & Quinn, 2009). Students' written language was further analyzed, and the data showed that students with higher reading scores were also more highly skilled in the area of written language. Also, an inverse relationship was found between DDM in writing and reading achievement: "As DDM decreased by a standard deviation (*SD)* of 1 in the written narrative task, students' reading achievement scores increased by approximately one quarter of 1 *SD*" (Craig, Zhang, Hensel, & Quinn, 2009, p. 848). To further analyze the reading scores, the researchers placed students into one of two levels of reading achievement: below-average and above-average. Their analysis reflected that the above average group shifted more language into SAE than the below-average group, with the below-average group producing three times the dialect features in their writing than the above average group. Overall, the data indicated that 85% of the students, regardless of their reading group, decreased their DDMs from oral to written narratives. However, the 81% of the students in the below-average group shifted their language, whereas 92% of the students in the above average group decreased their DDMs. This confirmed the researchers' hypothesis that stronger readers had a greater tendency to adapt their dialect to SAE when going from oral to written language.

The study done by Craig, Zhang, Hensel, and Quinn (2009) examined dialect density and dialect-shifting, and how these impact writing and reading achievement, as Fogel and Ehri (2000) looked solely at dialect-shifting and its effect on writing. They sought to determine the most effective way to teach Standard English (SE) forms to students who typically use Black English Vernacular (BEV) in their writing. The focus of this study was syntactic features, as opposed to phonological features, that differentiate BEV from SE. The researchers chose to use

the six syntactic features that most commonly distinguish BEV from SE in the study: possessive "s," past tense "ed," third-person present-tense singular "s," plural "s," indefinite article, and subject-verb agreement. Three independent variables were analyzed for their effectiveness in increasing BEV-speaking students' competence in writing with SE syntax: exposure to text with SE (E); exposure to text plus explicit instruction in the rules of SE and strategies for their use (ES); and exposure to text, strategies for using SE syntax, and guided practice and feedback in the use of these strategies to convert BEV into SE (ESP). Fogel and Ehri's hypothesis was that students in the third group, ESP, would show the most significant gains in SE writing proficiency and feelings of self-efficacy. The dependent variables were the difference scores calculated for the pre- and posttest translation task; the percentage of opportunities where the six targeted SE syntactic features were used in the free-writing task; the level of writing performance, with a score of 65% or greater as passing; the number of words written in the free-write stories, indicating story length; and the number of times students created opportunities to use the targeted SE forms in their writing. Additionally, the researchers determined the level of self-efficacy each student felt in their ability to write in SE. Self-efficacy measures were taken pre-and post-treatment, calculated as percentages, compared and analyzed.

The researchers studied 89 3rd- and 4th-grade students from two Northeastern U.S. cities. Both cities had sizable numbers of African American residents and residents below the poverty level. Participants ranged in age from 8-10 years old, and included 48 females and 41 males; all participants in the study were African American and spoke BEV. The participants chosen were those identified as African-American who wrote at least 25% of their responses in BEV on a pretreatment written translation task. Three schools participated in the study, all of which had

significant percentages of students with low levels of writing achievement, according to the writing standards set forth by the state.

The researcher randomly assigned twelve 3rd- and 4th-grade classes to one of three treatment conditions. Four classes, one 3rd-grade and three 4th-grade, contributed students to each of the three treatment groups, although entire classes received the training and post-treatment assessment. Classroom training and testing was done whole-class by the classroom teachers. First, they attended a training seminar to learn the rationale for the syntactic forms to be taught, the treatment conditions, and the procedures to be followed. To eliminate teach bias, the researchers did not link the highlighted syntactic forms with a particular ethnic group, nor was the term Black English Vernacular mentioned during the training. Next, the researchers analyzed the scores on the pretreatment translation task and self-efficacy measure to ensure there was no difference in knowledge of the targeted SE forms between groups prior to the treatment. To be certain that procedures were followed correctly, one of the researchers was present for all classroom training and testing sessions. To eliminate student reading ability as an extraneous variable, the teachers read aloud the stories featuring the targeted syntactic forms of SE instead of students reading themselves.

Data collection and instruction took place during two sessions which totaled approximately 60 minutes. The first session was about 15 minutes in duration and identical for all treatment groups. During this session, students completed the pretreatment tasks of translating BEV to SE and completing the self-efficacy assessment. The second session lasted 35-45 minutes, during which students participated in one of the three experimental treatments, completed the second self-efficacy measure, the three posttreatment assessments, and the third self-efficacy measure. The two sessions were approximately 1 week apart, and all treatment groups were given the

same amount of time to complete the posttreatment assessments.

From this study, the researchers concluded that the ESP treatment was more effective than the E and ES treatments in teaching students to shift their writing from BEV to SE syntactic forms. First, difference scores were calculated for the pre- and posttreatment translation task. This revealed that students in the ESP treatment group made significantly greater gains from pre- to posttreatment than students in the other groups. The same was true for the free-writing tasks, for which the researchers calculated a percentage of opportunities where SE forms were used. This data indicated that the students in the ESP treatment group had higher scores than the combined average scores of the students in the E and ES treatment groups. Further, 81% of the students in the ESP treatment group demonstrated a passing level of 65% or greater on the writing tasks, versus 55% of the ES students and 33% of the E students who achieved a passing level. Also, a comparison of story length between the three groups revealed that the ESP and E groups wrote stories of similar length, while those written by the ES group were significantly shorter. Additionally, the researchers calculated the number of opportunities students took to use the targeted SE forms in their writing. The data indicates that students in the ESP and E treatment groups created significantly more opportunities to shift to SE forms than those in the ES group. However, while the posttreatment measures of self-efficacy show an increase in the E and ES students, they reflect a decrease in the ESP students' feelings about their ability to use SE syntactic forms in their writing.

Summary.

The researchers in this section focused on dialect-shifting from AAE to SAE, and the effects of this on reading and writing. Catherine Compton-Lilly (2005) used the context of Reading Recovery lessons to analyze the behavior and miscues of one AAE-speaking student as she

processed SAE in books. Compton-Lilly noted that while the girl's self-corrections, reading achievement, and dialect-shifting increased, she continued to produce AAE variably and to struggle with AAE syntax while reading books in SAE. Similarly, Craig and Washington (2004) examined the correlation between dialect density, dialect-shifting, and reading achievement. Through studying AAE feature profiles and dialect density by grade level, they noted a significant decrease in dialect density between first and second grade, and found a correlation between dialect-shifting and reading achievement. Likewise, Thompson et al. (2004) investigated dialect-shifting, but focused on the differences in AAE production in the contexts of oral language, reading, and writing. They concluded that dialect-shifting is context-dependent, and that writing instruction may be the best opportunity to teach AAE-speaking students to shift into SAE. Craig et al. (2009) also looked at dialect-shifting and written word production, further examining the relationship between dialect-shifting in writing and reading achievement. Their research revealed that dialect density decreases from oral to written language production, and that higher dialect density correlates to lower scores in reading achievement. Fogel and Ehri (2000) also used writing as the context of their research on dialect-shifting, investigating an effective model for teaching AAE-speaking students to shift their writing into SAE syntax. They discovered the best approach had three components: exposure to, instruction in, and guided practice with SE syntactic rules. Students who received instruction with this model made significant gains in writing with SAE syntax and writing performance. In conclusion, the research in this section suggests that writing and reading achievement scores will rise if students learn to shift their dialect from AAE to SAE.

Conclusion

This review of the literature covered various perspectives on the subject of AAE and the effect it has on reading achievement. The first section provided information on the features and prevalence of child AAE, and highlighted the occurrence of alveolar bias in final consonant deletions. The data reflected that grade level impacts dialect density; AAE is produced in significant numbers when AAE-speaking children read orally in SAE; and phonological and combination features are produced in greater numbers than morphological features. Also, within the AAE feature of consonant deletions, alveolar /t/ is more vulnerable to omission than other commonly-deleted consonants. The next section reviewed research that examined the phonological and morphological differences between AAE and SAE, and how these differences impact reading achievement. First, the validity of standardized phonological assessments, and the appropriateness of their use with speakers of AAE, was questioned. One assessment in particular, the TOPA, was determined as inappropriate for use with AAE-speaking children because it does not result in a valid assessment of the phonological skills of this population. Also, researchers looked at the challenges AAE speakers face when making sound-spelling correspondences in SAE, and investigated differences in how AAE- and SAE-speaking children manipulate parts of the phonological code and manage other tasks of phonological processing. The data in these studies revealed that AAE affects decoding success, decoding strategies, and nonword spelling and phoneme deletion tasks. Moreover, the data indicated a correlation between success in phoneme deletion and reading achievement. The last study in this section examined the impact of familiarity with SE on the reading achievement of AAE-speaking children; the results showed a significant correlation between the two. The final section of this literature review addressed dialect density and dialect- shifting and their effects on reading,

writing, and vocabulary achievement. The data showed that AAE feature profiles differ by grade; dialect density declines sharply between first and second grade; and dialect density decreases significantly from oral language to oral reading, and oral reading to writing. Also, dialect-shifting can be variable, and grade level and community influence the degree to which it varies. Most importantly, students who learn to shift from AAE to SAE increase their achievement in reading, writing, and vocabulary knowledge. This literature provides a glimpse into the work researchers have done to understand the impact that AAE and dialect-shifting have on reading achievement. With knowledge of this research, educators may begin to narrow the gap in reading achievement between AAE-speaking students and their SAE-speaking non-Hispanic White peers.

CHAPTER THREE

PROCEDURES FOR THE STUDY

The research from the previous chapter illustrates the significant effects that African American English (AAE) has on the reading achievement of AAE-speaking children. It reflects that, depending on dialect density and grade level, AAE is produced in significant amounts in students' oral reading and writing, and that those students who can shift from AAE into Standard American English (SAE) show greater achievement in reading. The purpose of this study was to examine the impact of oral and written dialect-shifting instruction on the oral and written word accuracy of AAE-speaking second graders. In this chapter, descriptions of the participants, procedures, and data collection are presented.

Participants

A specific population was required for this study, thus an extensive process was used to select participants; all were required to be second grade speakers of AAE. To find students to fit these parameters, the researcher worked with an urban charter school to cull participants. The 2010-2011enrollment of this school was 490 students: 484 (98.7%) African American, 2 (.4%) Caucasian, 2 (.4%) Latino, and 2 (.4%) Asian. In addition, 88% of the students at the school qualified for free or reduced lunch. The researcher screened all second grade students on their reading achievement scores on the Measures of Academic Progress (MAP; Northwest Evaluation Association, 2011), SES, and lack of participation in a special education program. The MAP is a nationally norm-referenced assessment, and studies conducted by the Northwest Evaluation Association indicate strong evidence of the MAP as a reliable and valid assessment of reading achievement (Northwest Evaluation Association, 2011). In order to avoid negatively or

positively skewed results, only students who were at approximately the same level of reading achievement were considered for the study. Normed data from the Northwest Evaluation Association indicate a mean mid-year score for second graders to be 186, thus only students who had scored between 180 and 190 on the MAP were deemed eligible for the study. Further, all students considered for the study qualified for free or reduced lunch and none received special education services. Also, in order to ensure that all participants were speakers of AAE, the researcher administered the Diagnostic Evaluation of Language Variance screening test (DELV; Seymour, Roeper, & de Villiers, 2003) to the pool of candidates; one student was eliminated as he was designated a speaker of Mainstream American English (MAE). The DELV screening test determines a child's degree of language variation, from strong to some to no variation from MAE (Seymour, Roeper, & de Villiers, 2003). The reliability and validity of the DELV was confirmed through studies of test-retest stability, internal consistency, and interscorer reliability, on which scores of adequate stability, adequate to good reliability, and a high degree of consistency between scorers was achieved, respectively. After all screening measures were implemented, and parent consent forms received, a total of eight second grade students were included in the study: two girls and six boys with a mean age of 8 years, 6 months, 14 days. Following the screening assessments, participants were randomly assigned to intervention and control groups; the intervention group was comprised of two girls and two boys, and the control group was made up of four boys. The researcher created pairs of intervention and control group students, matching them within 2 points on their MAP reading scores and by similar achievement patterns from fall-to-winter MAP scores. Until administering the screening assessments, the researcher had not previously met any of the students.

Procedures

The intervention portion of the study was conducted between June 28 and July 27, 2011. The researcher met with two students at a time, four days a week, for approximately 30 minutes per day in a quiet area of the students' school. Due to absences and the necessity of a make-up day, there were a total of 15 lessons. The intervention was based on the procedure Kathryn Grace put forth in her book *Phonics and Spelling Through Phoneme-Grapheme Mapping* (2003), although modifications were made to this framework. In addition, the Intervention Focus words used within this framework each had a feature that is commonly modified in AAE. The researcher created this list based on Washington and Craig's index of child AAE (Craig et al., 2003). In the first lesson, the researcher explained the materials to the students, which consisted of tokens of two different colors, a pencil, and large grid paper for the students, and a list of Intervention Focus words for the researcher. Then, the researcher modeled the process while the students observed: the Intervention Focus word was said aloud and stretched slowly, while the researcher listened for every sound in the word and counted them on her fingers. Next, the researcher pushed a token into a square on large grid paper for each sound in the word; one color of token was used for consonants and another for vowels. Then, each token was replaced by the corresponding grapheme. When dictating words to the students during the intervention lessons, the researcher used each word in a sentence and had the students repeat the word before they attempted the phoneme-grapheme matching. It is important to note that the researcher made two modifications to Grace's Phoneme-Grapheme Mapping process. First, Grace recommends a three-day process, with instruction in a target sound and spelling concept on day one, reinforcement of the concept on day two, and Phoneme-Grapheme Mapping with words on day three. Due to time constraints, and the fact that the goal of the intervention was to shift students'

dialect awareness by listening for all of the sounds in a word pronounced in SAE and correctly match graphemes to those sounds, Grace's three-day process were abbreviated to one day. The majority of the instruction emphasized the components of stretching the words, listening for the sounds, and matching the phonemes and graphemes, instead of a target sound and spelling concept. Also, whereas Grace's Phoneme-Grapheme Mapping process guides students through the phoneme-grapheme matching sound by sound, participants in the study were asked to do this independently, and allowed up to three attempts at correctly matching graphemes to phonemes for each word. This modification was made to ascertain each student's efficacy with matching the graphemes to phonemes and to have a record of their attempts. When a student failed to match the phonemes and graphemes correctly during the intervention lessons, the researcher modeled the process again while the student observed and listened; feedback was also given regarding the misspellings. Then, the student was instructed to go to the next line to write his/her next attempt; the previous attempt was neither erased nor altered, to enable later analysis of misspellings. In all cases, the researcher completed the sequence for each word by modeling the correct grapheme-to-phoneme matching and having the students read the word orally while running their fingers under each letter. The intervention lessons followed the same procedure each day, and covered 5-7 words per lesson. Because the intervention was conducted during summer vacation, thus outside of the school day, the students in the control group did not receive any instruction during this time.

Table 3.1: Intervention Schedule

Dates	Activities	Amount of Time
June 28- July 27, 2011	Intervention: Spelling lessons focused on final consonant clusters	Approximately 30 minutes per session

Table 3.2: Intervention Lesson Words Categorized by AAE Features

Phonological Feature: Consonant Cluster Reduction			Phonological Feature: "G" Dropping
left	shift	elect	acting
myself	mild	subject	singing
modern	thrift	infect	hunting
paste	trust	sprint	burning
first	squint	contest	
hand	squirt	dentist	
cold	behind		
wolf	remind		
child	bolt		
scold	sold		
ghost	host		
grind	correct		
lantern	suspect		
cavern	respect		
cold	connect		
Phonological Feature: Postvocalic Consonant Reduction			**Phonological Feature: Devoicing Final Consonants**
soth			was
Combination Feature: Consonant Cluster Reduction + Zero Past Tense (CCR/PST)			**Combination Feature: Postvocalic Consonant Reduction + Zero Past Tense (PCR/PST)**
mixed	yelled		showed
wished	ganged		snowed
asked	sailed		
messed			
filmed			
stamped			
fished			
armed			
winked			
slumped			

Combination Feature: Consonant Cluster Reduction + Zero Plural (CCR/ZPL)	Combination Feature: Consonant Cluster Reduction + Subject-Verb Agreement (CCR/SVA)
nests tents	drifts hits lasts melts rents

Data Collection

The research for this study was conducted with a pre- posttest design. The independent variable was a series of phoneme-grapheme matching lessons focusing on words with eight features that are commonly modified in AAE. The dependent variables were the changes in students' pre- and post-assessment scores on the number and types of miscues and self-corrections on an oral reading passage from the Qualitative Reading Inventory – 5 (QRI-5; Leslie & Caldwell, 2011), spelling accuracy on a list of dictated words, and spelling accuracy on a writing sample. Prior to the intervention, the researcher administered the pre-assessments to all participants in a quiet area of their school. First, all students read a Level Two QRI-5 passage orally while miscues and self-corrections were noted by the researcher. This level was chosen as MAP data indicated all were reading at the second grade level. Following the oral reading, the retelling and comprehension questions components of the QRI-5 were administered to confirm Level Two as appropriate for the students; confirmation was received. The QRI-5 was chosen due to its reliability and validity as a source of leveled reading passages, measure of comprehension, and measure of word accuracy. Studies ensuring reliability of the QRI-5 indicate that interscorer reliability was consistent, with interrater scores ranging between .94 and

.97, and intra-rater reliability at .95 and .97 for various components of the assessment. Further, test-retest reliability was found to be positive and significant and alternate-form reliability occurred 84% of the time. Additionally, both criterion-related validity and construct validity were found to be statistically significant for the QRI-5 (Leslie & Caldwell, 2011). After administering the QRI-5, the researcher dictated ten words with eight features that are commonly modified in AAE and asked students to spell them. This was used as a measure of word accuracy and students' ability to generate correct spelling for words that have greater potential to be modified by speakers of AAE. The words on the list were chosen based on Washington and Craig's definitions for the 9 phonological, 24 morphosyntactic, and 8 combination types of child AAE (Craig et al., 2003). Finally, student were given an open-ended prompt and asked to respond in writing with no parameters on time or quantity of writing in the finished product. This was an additional measure of word accuracy and indication of students' ability to generate correct spelling. However, the words in the writing sample were of the students' own choosing. The pre-assessments were done in one sitting, and took approximately 45-60 minutes.

Table 3.3: Pre-Assessment Schedule

Dates	Activities	Amount of Time
June 13-16, 27	Collection of pre-assessment data: DELV, Dictated Words, QRI-V, Writing Sample	45-60 minutes per student

At the conclusion of the 15 intervention lessons, the researcher administered post-assessments to the intervention and control group students. All were untimed and conducted one-one-one in a quiet area of the students' school. These included another Level Two QRI passage, set of ten dictated words, and open-ended writing prompt. All post-assessments were administered with

the same procedures as were the pre-assessments.

Table 3.4: Post-Assessment Schedule:

Dates	Activities	Amount of Time
July 27-29 (Intervention students) August 18 (Control students)	Collection of post-assessment data: Dictated Words, QRI-V, Writing Sample	Approximately 45 minutes per student

Conclusion

The purpose of this action research was to measure the effects of oral and written dialect-shifting instruction on the oral and written word accuracy of African American-speaking second graders. First, students were screened on a number of components and determined to be speakers of African American English before they were considered for the study. Next, several pre-assessments were administered in order to measure pre- and post-intervention growth. Then, the researcher met four times a week for four weeks with the intervention students, modeling a process designed to heighten their awareness of features in SAE that are commonly modified in AAE in order to increase their oral and written word accuracy. During this time, the students in the control group received no instruction. After the intervention, post-assessments were administered to all participants. Pre- and post-assessment data were analyzed and coded for the eight Intervention Focus African American features chosen for this study. These data are presented in Chapter Four.

CHAPTER FOUR – RESULTS

The goal of this action research was to measure the impact of dialect-shifting instruction on African American English (AAE)-speaking students' oral and written word accuracy. In order to measure the effects of the intervention, pre- and post-assessments were administered and data were collected from all participants. This included the number of overall and Intervention Focus AAE Feature miscues and self-corrections on a passage selected from the Qualitative Reading Inventory - 5 (QRI-5; Leslie & Caldwell, 2011); the number of overall and Intervention Focus AAE Feature misspellings from a writing sample; and the number of misspellings from a list of dictated words. The Intervention Focus AAE Features included: Consonant Cluster Reduction (CCR); G-Dropping; Postvocalic Consonant Reduction (PCR); Devoicing Final Consonants (DFC); Consonant Cluster Reduction + Zero Past Tense (CCR/PST); Postvocalic Consonant Reduction + Zero Past Tense (PCR/PST); Consonant Cluster Reduction + Zero Plural (CCR/ZPL); and Consonant Cluster Reduction + Subject-Verb Agreement (SVA) (Craig, Thompson, Washington, & Potter, 2003). These data, along with pre-to-post-assessment changes, are reported in Tables 4.1-4.8; miscued and misspelled words are highlighted and labeled according to AAE feature. The data are subsequently examined in greater detail in the following sections: Data on Miscues; Data on Self-Corrections; Data on Misspellings: Writing Sample; and Data on Misspellings: Dictated Words. Finally, the presentation of data is followed by a summary of main points.

Presentation and Analysis of Data

Tables 4.1-4.8 collate all pre- and post-assessment miscue, self-correction, and misspelling data for participants in the study. The data will be analyzed further in subsequent sections.

Table 4.1: Assessment Data – Student B1

	Pre-Assessment	Post-Assessment
QRI Miscues	"What Can I Get for My Toy?" – Level 2 171 words ran – PCR Chris's – PCR Total Miscues= 2 Miscues with AAE features = 2 1% of the passage was miscued 100% of the miscues had Intervention Focus AAE features 1% of the passage was miscued on words that had Intervention Focus AAE features	"The Family's First Trip" – Level 2 304 words was - PCR decide - PCR he needed – PCR/PST country long to would - PCR brought - PCR a enough - PCR embarrassed – CCR/PST listened – CCR/PST his - DFC begged – CCR/PST luckily heated spent - CCR Total Miscues = 18 Miscues with Intervention Focus AAE Features = 11 6% of the passage was miscued 61% of the miscued words had Intervention Focus AAE features 4% of the passage was miscued on words that had Intervention Focus AAE features
QRI Self-Corrections	his - PCR his – PCR my were that - PCR his – PCR friend – CCR hey we'll - PCR Total Self-Corrections = 9 S-C with Intervention Focus AAE features = 6 6% of the passage was self-corrected 67% of the S-C had intervention focus AAE	was - DFC planning – "G" dropping unlike - PCR Total Self-Corrections = 3 S-C with Intervention Focus AAE Features = 3 1% of the passage was self-corrected 100% of the S-C had AAE Intervention Focus Features 1% of the passage was self-corrected on words that had Intervention Focus AAE features

	features 4% of the passage was self-corrected on words that had Intervention Focus AAE features	
Writing Sample: Misspelled Words	then - PCR bass - PCR Student B1 wrote a total of 28 words for her pre-assessment writing sample and misspelled 2 of the words. • 7% of the words in the sample were misspelled • 2 of the misspelled words had Intervention Focus AAE features • 100% of the misspelled words had Intervention Focus AAE features • 7% of the writing sample had misspellings with words that had Intervention Focus AAE features	cousin's party waters - CCR cousin (cuson) - PCR who (how) cousin (cuson) - PCR whose (how) - DFC goes (go) - DFC cousin (cuson) - PCR graduated (graguwaded) Student B1 wrote a total of 53 words for her post-assessment writing sample and misspelled 10 of the words. • 19% of the words in the sample were misspelled • 6 of the misspelled words had Intervention Focus AAE features • 60% of the misspelled words had Intervention Focus AAE features • 11% of the writing sample had misspellings with words that had Intervention Focus AAE features
Dictated Words: Misspelled Words	0 • 10 out of 10 correct	world (would) plants (plantes) • 8 out of 10 correct

Table 4.2: Assessment Data – Student B2

	Pre-Assessment	Post-Assessment
Miscues	"What Can I Get for My Toy?" – Level 2 171 words anything - "G" dropping at – PCR hey we Total Miscues = 4 Miscues with AAE features = 2 2 % of the passage was miscued 50% of the miscued words had Intervention Focus AAE Features 1% of the passage was miscued on words that had Intervention Focus AAE Features	"What Can I Get for My Toy?" – Level 2 171 words Total Miscues = 0 Miscues with AAE Features = 0 0% of the passage was miscued
Self-Corrections	he Total Self-Corrections = 1 S-C with AAE features = 0 .6% of the passage was self-corrected 0 % of the S-C had AAE features 0% of the passage was self-corrected on words that had AAE features	looked – CCR/PST could - PCR Total Self-Corrections = 2 S-C with AAE features = 2 1% of the passage was self-corrected 100% of the S-C had Intervention Focus AAE features 1% of the passage was self-corrected on words that had Intervention Focus AAE features
Writing Sample: Misspelled Words	with - PCR with - PCR cousins – CCR/ZPL cousin's network - CCR channel Nickelodeon with - PCR Student B2 wrote a total of 63 words for his pre-assessment writing sample and misspelled 8 of the words. • 13% of the words in the sample were misspelled • 5 of the misspelled words had AAE features • 63% of the misspelled words had Intervention Focus AAE features • 8% of the writing sample had	road - PCR Missouri braids - CCR braids - CCR singing – "G" dropping watched – CCR/PST race - PCR with - PCR with – PCR survival - PCR activities - Student B2 wrote a total of 68 words for his post-assessment writing sample and misspelled 11 of the words. • 16% of the words in the sample were misspelled • 9 of the misspelled words had Intervention Focus AAE features • 82% of the misspelled words had

	misspellings with words that had Intervention Focus AAE features	Intervention Focus AAE features • 13% of the writing sample had misspellings with words that had Intervention Focus AAE features
Dictated Words: Misspelled Words	calls (cause) • 9 out of 10 correct	scold (scooth) • 9 out of 10 correct

Table 4.3: Assessment Data – Student C1

	Pre-Assessment	Post-Assessment
Miscues	"What Can I Get for My Toy?" – Level 2 171 words a wanted looked - CCR-PST don't - CCR looked - CCR-PST weren't - CCR friend - CCR Chris - PCR wanted wanted way we'll - PCR Total Miscues= 12 Miscues with Intervention Focus AAE features = 7 7% of the passage was miscued 58% of the miscued words had Intervention Focus AAE features 4% of the passage was miscued on words that had Intervention Focus AAE features	"The Family's First Trip" – Level 2 304 words forward - CCR looked – CCR/PST they spent - CCR excited visit - PCR his - DFC had - PCR never traveled - CCR/PST he couldn't - CCR dizzy wouldn't - CCR he decided another brought - PCR the brought - PCR he enough - PCR clothes - DFC pajamas embarrassed – CCR/PST forgotten driving – "G" dropping quickly – as- DFC read-PCR listened- CCR/PST parents- CCR/ZPL hotel-PCR begged-CCR/PST luckily suits- CCR/ZPL heated Total Miscues = 37 Miscues with AAE Features = 22 12% of the passage was miscued 59% of the miscued words had Intervention Focus AAE features 7% of the passage was miscued on words that had Intervention Focus AAE features

Self-Corrections	it - PCR went - CCR went - CCR Chris's hey can - PCR Total Self-Corrections = 6 S-C with AAE features = 4 4% of the passage was self-corrected 67% of the S-C had Intervention focus AAE features 2% of the passage was self-corrected on words that had AAE features	before – PCR to knew he been - PCR and – CCR Total Self-Corrections = 6 S-C with AAE features = 3 2% of the passage was self-corrected 50% of the S-C had Intervention Focus AAE Features 1% of the passage was self-corrected on words that had Intervention Focus AAE features
Writing Sample: Misspelled Words	swings – CCR/ZPL boy played – PCR/PST Student C1 wrote a total of 35 words for his pre-assessment writing sample and misspelled 3 of the words. • 9% of the words in the sample were misspelled • 2 of the misspelled words had Intervention Focus AAE features • 67% of the misspelled words had Intervention Focus AAE features • 6% of the writing sample had misspellings with words that had Intervention Focus AAE features	went - CCR fair when - PCR ride - PCR looked – CCR/PST scary ride - PCR kind - CCR of - PCR scary ride - PCR game - PCR Student C1 wrote a total of 61 words for his post-assessment writing sample and misspelled 12 of the words. • 20% of the words in the sample were misspelled • 9 of the misspelled words had Intervention Focus AAE features • 75% of the misspelled words had Intervention Focus AAE features • 15% of the writing sample had misspellings with words that had Intervention Focus AAE features
Dictated Words: Misspelled Words	raining (rainy) told (toed) does (dus) • 7 out of 10 correct	plants (plest) • 9 out of 10 correct

Table 4.4: Assessment Data – Student C2

	Pre-Assessment	Post-Assessment
Miscues	"What Can I Get for My Toy?" – Level 2 171 words Thomas excited Atlanta decide - PCR so he take - PCR things – CCR/ZPL busy decided realized – CCR/PST dizzy favorite - PCR brought - PCR pants - CCR shirt - CCR be brought - PCR enough - PCR else - CCR almost - CCR forgot - PCR pajamas have - DFC embarrassed –CCR/PST listened – CCR/PST parents - CCR looking – "G" dropping hotel - PCR begged – CCR/PST their luckily they remembered – CCR/PST suits - CCR heated suits - CCR spent - CCR looked – CCR/PST forward -CCR Total Miscues = 40 Miscues with AAE Features = 26 23% of the passage was miscued 65% of the miscued words had Intervention Focus AAE features 15% of the passage was miscued on words that had Intervention Focus AAE features	"The Family's First Trip" – Level 2 304 words we anything – "G" dropping new you'll - PCR the were an - PCR Chris - PCR the Chris - PCR could - PCR trade - PCR we can - PCR trade - PCR else - CCR have- DFC Total Miscues= 17 Miscues with AAE features = 11 6% of the passage was miscued 65% of the miscued words had Intervention Focus AAE features 4% of the passage was miscued on words that had Intervention Focus AAE features
Self-Corrections	a all – PCR they out - PCR	it - PCR he his - DFC they

	that - PCR would -PCR as - DFC his – DFC Total Self-Corrections = 8 S-C with AAE features = 6 5% of the passage was self-corrected 75% of the S-C had Intervention Focus AAE features 4% of the passage was self-corrected on words that had Intervention Focus AAE features	wanted hey way Total Self-Corrections = 7 S-C with AAE features = 2 2% of the passage was self-corrected 29% of the S-C had Intervention Focus AAE features .7% of the passage was self-corrected on words that had Intervention Focus AAE features
Writing Sample: Misspelled Words	would - PCR basketball - PCR football - PCR basketball - PCR soccer box skateboard - CCR roller skating – "G" dropping Student C2 wrote a total of 16 words for his pre-assessment writing sample and misspelled 9 of the words. • 56% of the words in the sample were misspelled • 6 of the misspelled words had Intervention Focus AAE features • 67% of the misspelled words had Intervention Focus AAE features • 38% of the writing sample had misspellings with words that had Intervention Focus AAE features	went - CCR laser tag - PCR sister started laser tag - PCR good - PCR Student C2 wrote a total of 29 words for his post-assessment writing sample and misspelled 8 of the words. • 28% of the words in the sample were misspelled • 4 of the misspelled words had AAE features • 50% of the misspelled words had AAE features • 14% of the writing sample had misspellings with words that had AAE features
Dictated Words: Misspelled Words	mouth (malth) raining (raneing) most (moset) best (besl) calls (cols) does (dus) • 4 out of 10 correct	running (runig) world (world) next (necst) plants (plans) • 6 out of 10 correct

Table 4.5: QRI Miscues and Self Corrections – Student D1

	Pre-Assessment	Post-Assessment
Miscues	"The Trip to the Zoo" – Level 3, 312 words beasts – CCR/ZPL Angela chimps – CCR/ZPL acted acted lion - PCR lion - PCR Total Miscues= 7 Miscues with AAE features = 4 2% of the passage was miscued 57% of the miscues had Intervention Focus AAE features 1% of the passage was miscued on words that had Intervention Focus AAE features	"A Special Birthday for Rosa" – Level 3 497 words eagerly Rosa's promotion - PCR meant - CCR another liked – CCR/PST Italy joyfully Rosa's Rosa's her that - PCR sang Rosa's to is - DFC is - DFC would - PCR with - PCR Total Miscues = 19 Miscues with AAE Features = 8 4% of the passage was miscued 42% of the miscues had Intervention Focus AAE features 2% of the passage was miscued on words that had Intervention Focus AAE features
Self-Corrections	classes Lopez anyone got - PCR everyone she Total Self-Corrections = 6 S-C with AAE features = 1 2% of the passage was self-corrected 17% of the S-C had Intervention Focus AAE features .3% of the passage was self-corrected on words that had Intervention Focus AAE features	they what - PCR made - PCR was - DFC waving – "G" dropping finished – CCR/PST Total Self-Corrections = 6 S-C with AAE features = 5 1% of the passage was self-corrected 83% of the S-C had Intervention Focus AAE features 1% of the passage was self-corrected on words that had Intervention Focus AAE features
Writing Sample: Misspelled	watch - PCR Student D1 wrote a total of 12 words for her	went - CCR world - CCR hotel - PCR

Words	pre-assessment writing sample and misspelled 1 of the words. • 8% of the words in the sample were misspelled • 1 of the misspelled words had Intervention Focus AAE features • 100% of the misspelled words had Intervention Focus AAE features • 8% of the writing sample had misspellings with words that had Intervention Focus AAE features	went - CCR went - CCR roller coaster at - PCR buffet went - CCR then - PCR hotel - PCR Student D1 wrote a total of 46 words for her post-assessment writing sample and misspelled 12 of the words. • 26% of the words in the sample were misspelled • 9 of the misspelled words had Intervention Focus AAE features • 75% of the misspelled words had Intervention Focus AAE features • 20% of the writing sample had misspellings with words that had Intervention Focus AAE features
Dictated Words: Misspelled Words	raining (rainy) – "G" dropping calls (call) - CCR does (dose) -DFC • 7 out of 10 words correct	world (would) - CCR scold (scould) - CCR • 8 out of 10 words correct

Table 4.6: QRI Miscues and Self Corrections – Student D2

	Pre-Assessment	Post-Assessment
Miscues	"The Trip to the Zoo" – Level 3; 312 words were that - PCR acted got - PCR would - PCR with - PCR with - PCR so in - PCR the lion - PCR house - PCR lion - PCR Total Miscues= 13 Miscues with AAE features = 9 4% of the passage was miscued 69% of the miscued words had Intervention Focus AAE features 3% of the passage was miscued on words that had Intervention Focus AAE features	"A Special Birthday for Rosa" – Level 3; 487 words for promotion - PCR to Italy joyfully Rosa's Rosa's should - PCR a the then - PCR all the it - PCR is - DFC is - DFC blew Rosa said - PCR in - PCR it - PCR to Total Miscues = 22 Miscues with AAE Features = 9 5% of the passage was miscued 41% of the miscued words had Intervention Focus AAE features 2% of the passage was miscued on words that had Intervention Focus AAE features
Self-Corrections	0 Total Self-Corrections = 0 S-C with AAE features = 0 0% of the passage was self-corrected % of the S-C had Intervention Focus AAE features 0% of the passage was self-corrected on words that had Intervention Focus AAE features	move - PCR all - PCR for each - PCR this - PCR one Total Self-Corrections = 6 S-C with AAE features = 4 1% of the passage was self-corrected 67% of the S-C had Intervention Focus AAE features 1% of the passage was self-corrected on words that had Intervention Focus AAE features
Writing Sample: Misspelled	swimming – "G" dropping Student D2 wrote a total of 6 words for his	Wisconsin - PCR Florida

Words	pre-assessment writing sample and misspelled 1 of the words. • 17% of the words in the sample were misspelled • The misspelled word had an Intervention Focus AAE feature • 100% of the misspelled words had AAE features • 17% of the writing sample had a misspelling with a word that had an Intervention Focus AAE feature	Student D2 wrote a total of 9 words for his post-assessment writing sample and misspelled 2 of the words. • 22% of the words in the sample were misspelled • 1 of the misspelled words had AAE features • 50% of the misspelled words had AAE features • 11% of the writing sample had misspellings with words that have AAE features
Dictated Words: Misspelled Words	raining (raiming) • 9 out of 10 words correct	scold (sculld) • 9 out of 10 words correct

Table 4.7: QRI Miscues and Self Corrections – Student F1

	Pre-Assessment	Post-Assessment
Miscues	"The Trip to the Zoo" – Level 3; 312 words jumped – CCR/PST classes were talked – CCR/PST wanted wanted the acted Lopez Maria group - PCR monkey where acted a to watched – CCR/PST pace -- PCR so remembered – CCR/PST traced – CCR/PST and - CCR Total Miscues= 22 Miscues with AAE features = 8 7% of the passage was miscued 36% of the miscued words had Intervention Focus AAE features 3% of the passage was miscued on words that had Intervention Focus AAE features	"A Special Birthday for Rosa" – Level 3; 487 words eagerly the company promotion – PCR Jose they presents - CCR blow without - PCR Italy loudly Rosa's all - PCR the television – PCR chosen - PCR it - PCR is - DFC met - PCR Total Miscues = 19 Miscues with AAE Features = 9 4% of the passage was miscued 47% of the miscued words had Intervention Focus AAE features 2% of the passage was miscued on words that had Intervention Focus AAE features
Self-Corrections	the spent - CCR that - PCR thought - PCR Total Self-Corrections = 4 S-C with AAE features = 3 1% of the passage was self-corrected 75% of the S-C had Intervention Focus AAE features 1% of the passage was self-corrected on words that had Intervention Focus AAE features	0 Total Self-Corrections = 0 S-C with AAE features = 0 0% of the passage was self-corrected 0% of the S-C had Intervention Focus AAE features 0% of the passage was self-corrected on words that had Intervention Focus AAE features
Writing Sample: Misspelled Words	baseball - PCR basketball - PCR soccer	went - CCR cousin's airplane - PCR

	Student F1 wrote a total of 5 words for his pre-assessment writing sample and misspelled 3 of the words. • 60% of the words in the sample were misspelled • 2 of the misspelled words had Intervention Focus AAE features • 67% of the misspelled words had Intervention Focus AAE features • 40% of the writing sample had misspellings with words that had AAE features	Student F1 wrote a total of 12 words for his post-assessment writing sample and misspelled 3 of the words. • 25% of the words in the sample were misspelled • 2 of the misspelled words had Intervention Focus AAE features • 67% of the misspelled words had Intervention Focus AAE features • 17% of the writing sample had misspellings with words that had AAE features
Dictated Words: Misspelled Words	raining (raing) most (mose) does (thes) • 7 out of 10 words correct	running (runnig) belt (belit) scold (scoded) • 7 out of 10 correct

Table 4.8: QRI Miscues and Self Corrections – Student F2

	Pre-Assessment	Post-Assessment
Miscues	"The Trip to the Zoo" – Level 3; 312 words Carlos that - PCR beasts – CCR/ZPL thought - PCR to the she the acted would - PCR help - CCR so carefully what - PCR his - DFC Total Miscues= 15 Miscues with AAE features = 7 5% of the passage was miscued 47% of the miscued words had Intervention Focus AAE features 2% of the passage was miscued on words that had AAE features	"A Special Birthday for Rosa" – Level 3; 487 words the Rosa's wanted and - CCR wouldn't - CCR a Italy joyfully could - PCR Rosa's afterwards - CCR Jose took - PCR a all - PCR won't - CCR I'm anyway Rosa's asked - PCR/PST chosen Rosa's special finished – CCR/PST almost - CCR Total Miscues = 25 Miscues with AAE Features = 10 5% of the passage was miscued 40% of the miscued words had Intervention Focus AAE features 2% of the passage was miscued on words that had AAE features
Self-Corrections	the where that - PCR Total Self-Corrections = 3 S-C with AAE features = 1 1% of the passage was self-corrected 33% of the S-C had AAE features .3% of the passage was self-corrected on words that had AAE features	sent - CCR or a I Total Self-Corrections = 4 S-C with AAE features = 1 .8% of the passage was self-corrected 25% of the S-C had AAE features .2% of the passage was self-corrected on words that had AAE features
Writing Sample: Misspelled	0 words misspelled Student F2 wrote a total of 18 words for his	fair Student F2 wrote a total of 10 words for his post-

Words	pre-assessment writing sample and misspelled 0 of the words. • 0% of the words in the sample were misspelled	assessment writing sample and misspelled 1 of the words. • 10% of the words in the sample were misspelled • 0 of the misspelled words had Intervention Focus AAE features • 0% of the misspelled words had Intervention Focus AAE features • 0% of the writing sample had misspellings with words that had Intervention Focus AAE features
Dictated Words: Misspelled Words	raining (rainy) does (dose) • 8 out of 10 correct	had (hod) sold (slod) scold (skeld) • 7 out of 10 correct

Data on Miscues

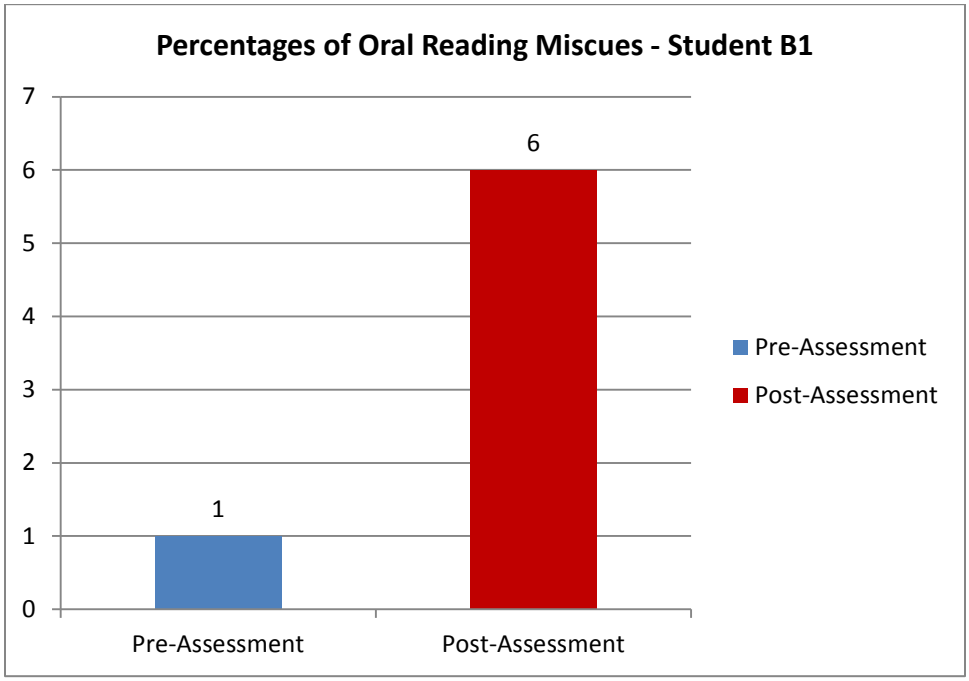
Data on overall miscues are presented in Table 4.9-4.10 and Figures 4.1-4.10, along with an analysis of the data. Data on miscues on words with Intervention Focus AAE Features are presented in Tables 4.11-4.16 and Figures 4.11-4.22, followed by an analysis of the data.

Table 4.9: Percentages of Oral Reading Miscues - Intervention Students

Intervention Student	Pre-Assessment	Post-Assessment	Change
B1	1%	6%	+5%
C1	7%	12%	+5%
D1	2%	4%	+2%
F1	7%	4%	-3%

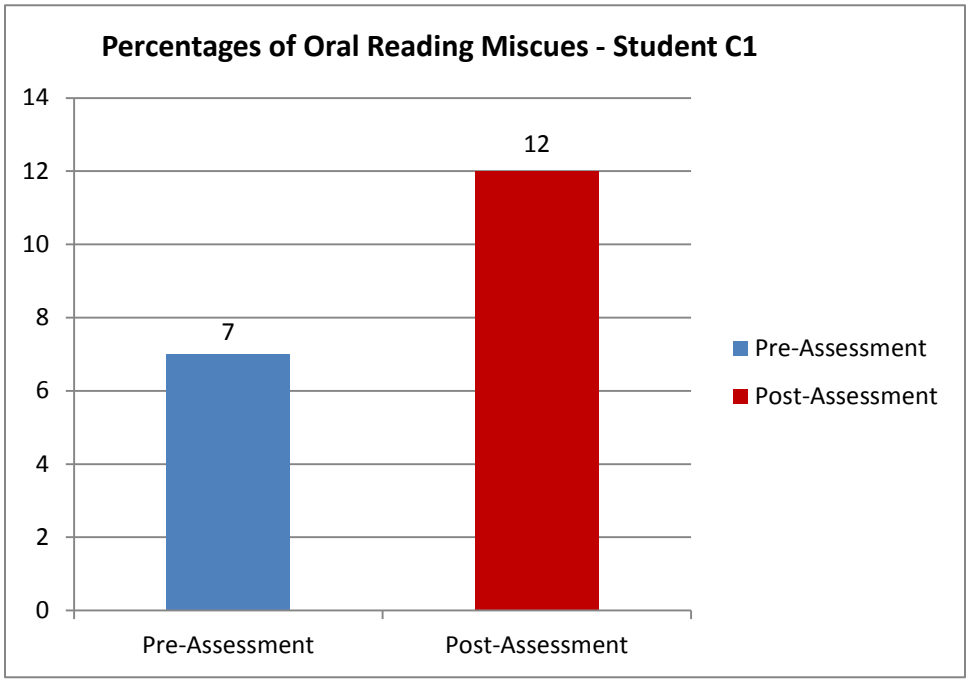
The number of miscues went up between 2% and 5% for three of the intervention students from pre- to post-assessment, while one student experienced a 3% decline in miscues.

Figure 4.1: Percentages of Oral Reading Miscues – Students B1



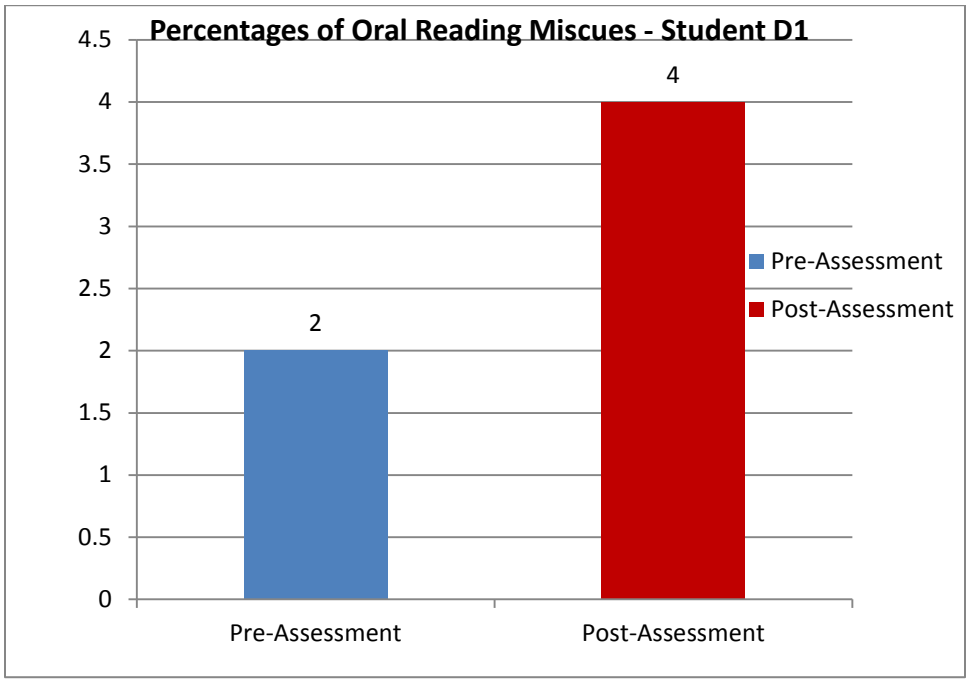
Oral reading miscues increased 5% for student B1, pre- to post-assessment.

Figure 4.2: Percentages of Oral Reading Miscues – Student C1



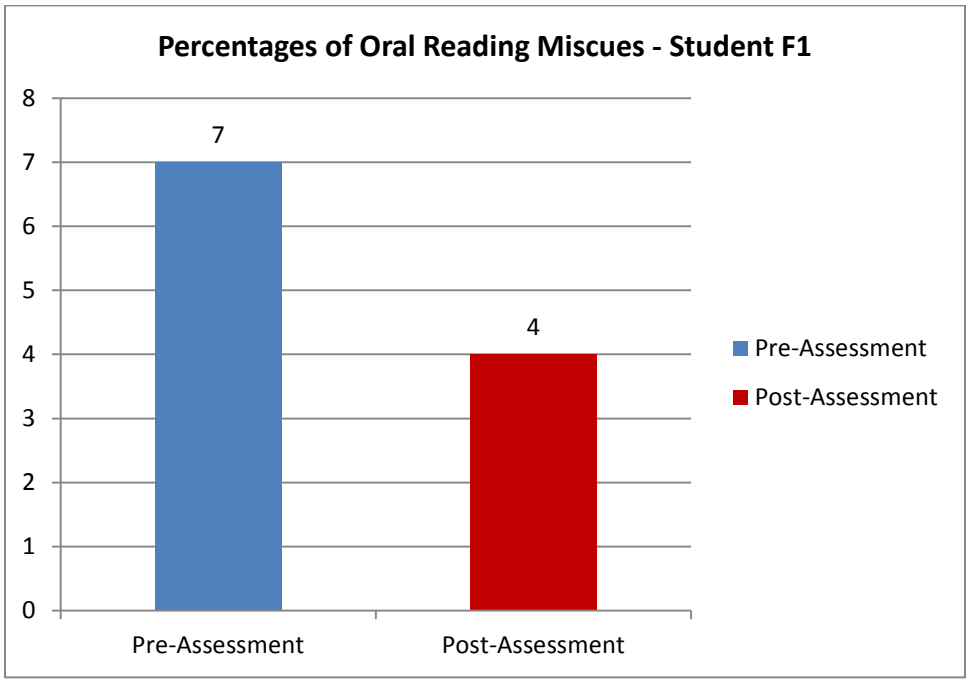
Oral reading miscues increased 5% for student C1, pre- to post-assessment.

Figure 4.3: Percentages of Oral Reading Miscues – Student D1



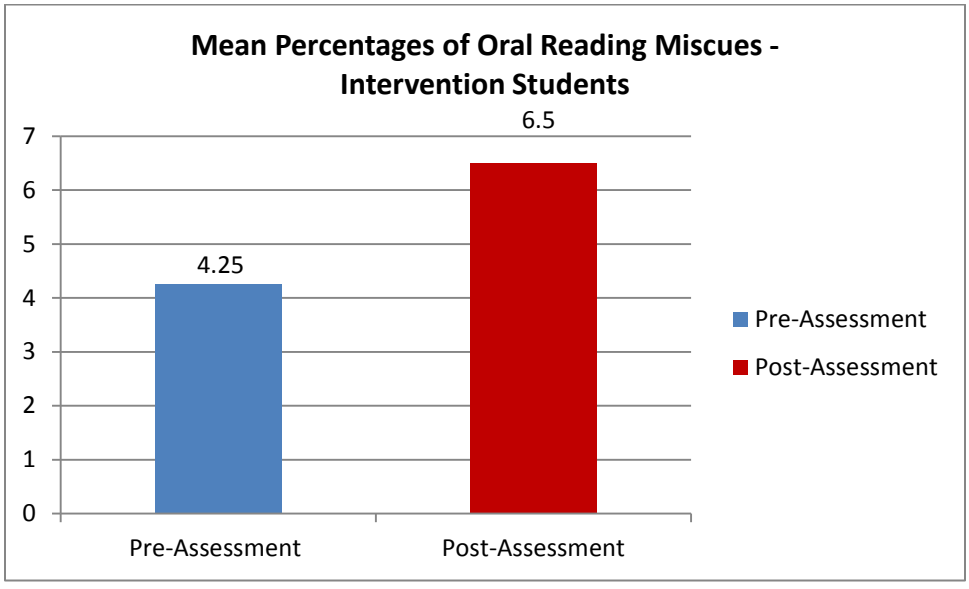
Oral reading miscues increased 2% for student D1, pre- to post-assessment.

Figure 4.4: Percentages of Oral Reading Miscues – Student F1



Oral reading miscues decreased 3% for student F1, pre- to post-assessment.

Figure 4.5: Mean Scores of Oral Reading Miscues – Intervention Students



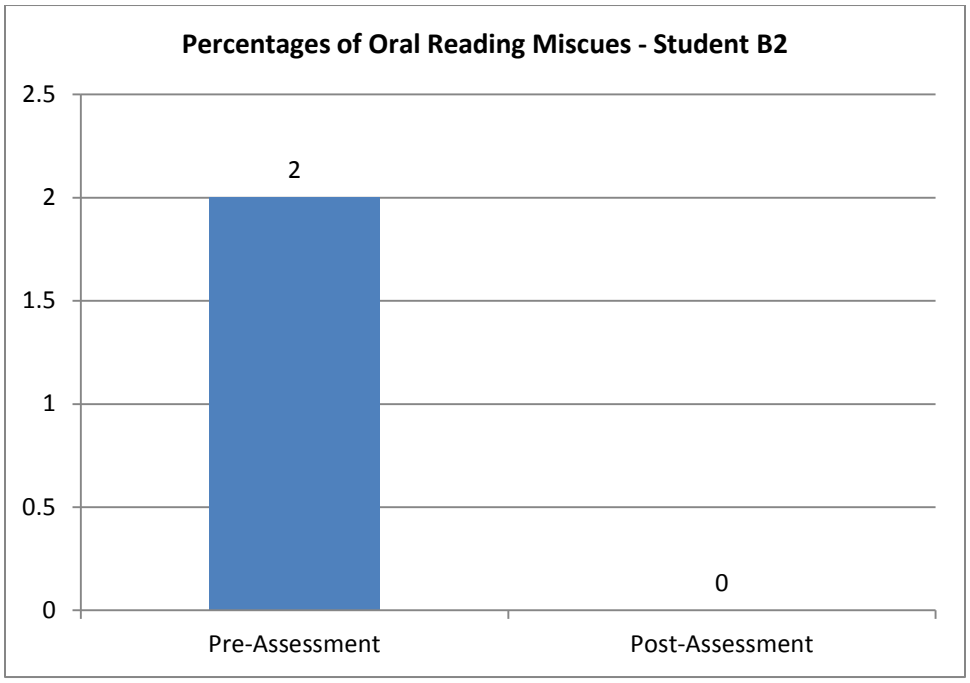
The mean percentage of oral reading miscues for the students in the intervention group went up 2.5%, pre- to post-assessment.

Table 4.10: Percentages of Oral Reading Miscues - Control Students

Control Student	Pre-Assessment	Post-Assessment	Change
B2	2%	0	-2%
C2	23%	6%	-17%
D2	4%	5%	+1%
F2	5%	5%	0%

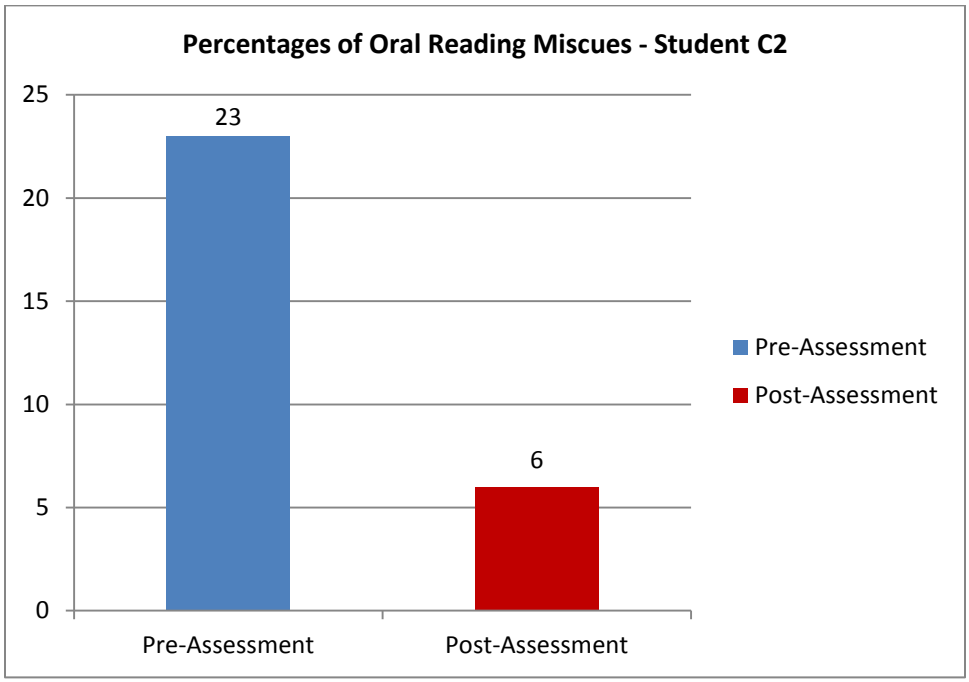
The change in percentage of oral reading miscues went from 17% fewer to 1% more for the students in the control group, pre- to post-assessment.

Figure 4.6: Percentage of Oral Reading Miscues – Student B2



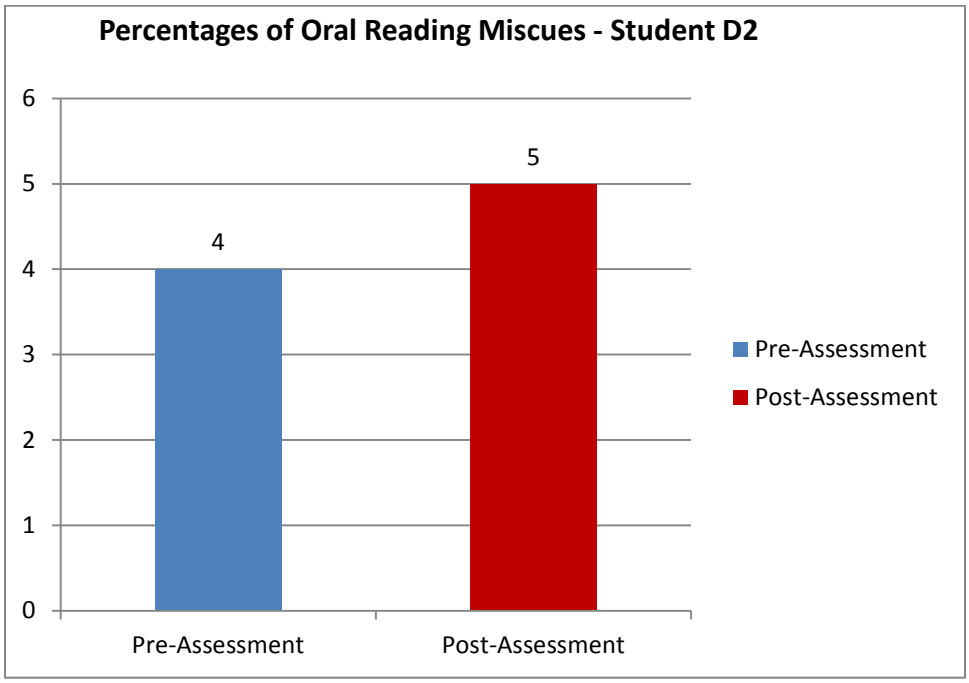
Oral reading miscues decreased 2% for student B2, pre- to post-assessment.

Figure 4.7: Percentages of Oral Reading Miscues – Student C2



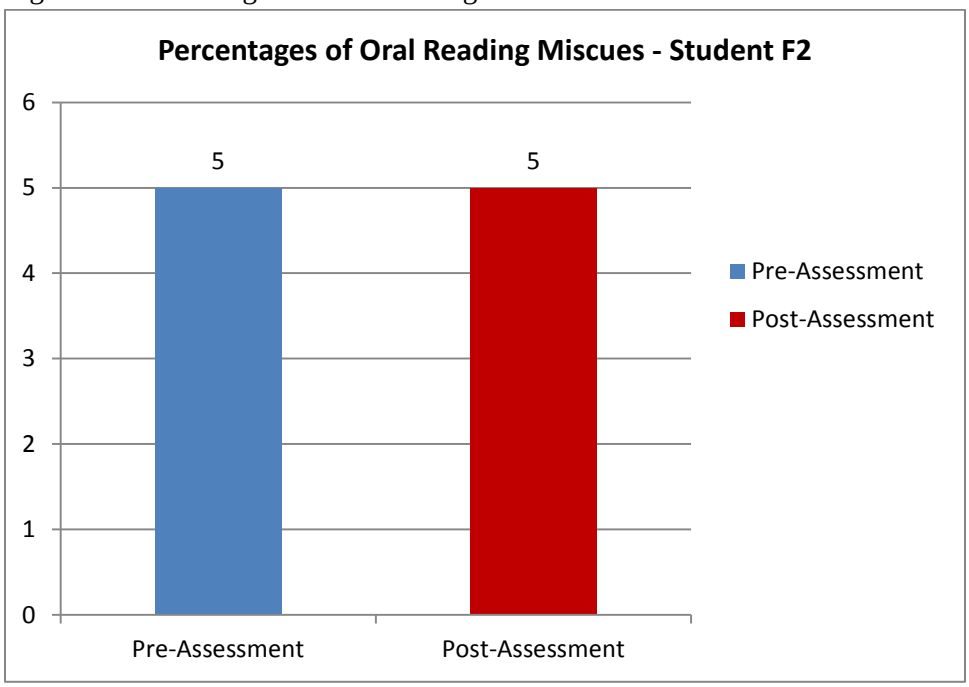
Oral reading miscues decreased 17% for student C2 pre- to post-assessment.

Figure 4.8: Percentages of Oral Reading Miscues – Student D2



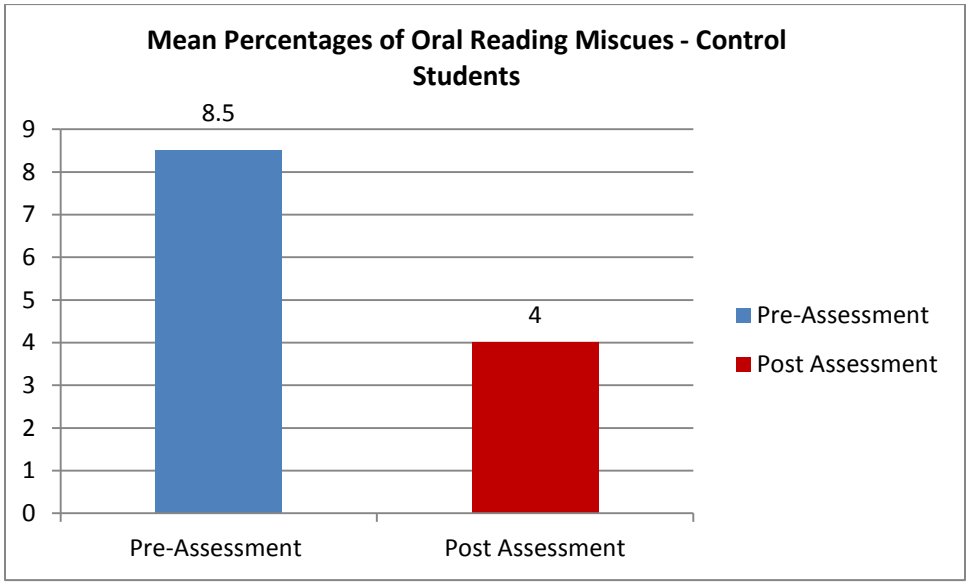
Oral reading miscues increased 1% for student D2 pre- to post-assessment.

Figure 4.9: Percentages of Oral Reading Miscues – Student F2



Oral reading miscues remained the same for student F2, with 5% of the pre- and post-assessment miscued.

Figure 4.10: Mean Scores of Oral Reading Miscues – Control Students



The mean percentage of oral reading miscues for the students in the control group decreased 4.5%, pre- to post-assessment.

Table 4.11: Percentages of Miscued Words with Intervention Focus AAE Feature – Intervention Students

Intervention Student	Pre-Assessment	Post-Assessment	Change
B1	100%	61%	-39%
C1	58%	59%	+16%
D1	57%	42%	-15%
F1	36%	47%	+11%

The students in the intervention group ranged from 39% fewer miscues on words with Intervention Focus AAE Features to 16% more, pre- to post-assessment.

Table 4.12: Percentages of Miscued Words with Intervention Focus AAE Feature – Control Students

Control Student	Pre-Assessment	Post-Assessment	Change
B2	50%	0	-50%
C2	65%	65%	0
D2	69%	41%	-28%
F2	47%	40%	-7%

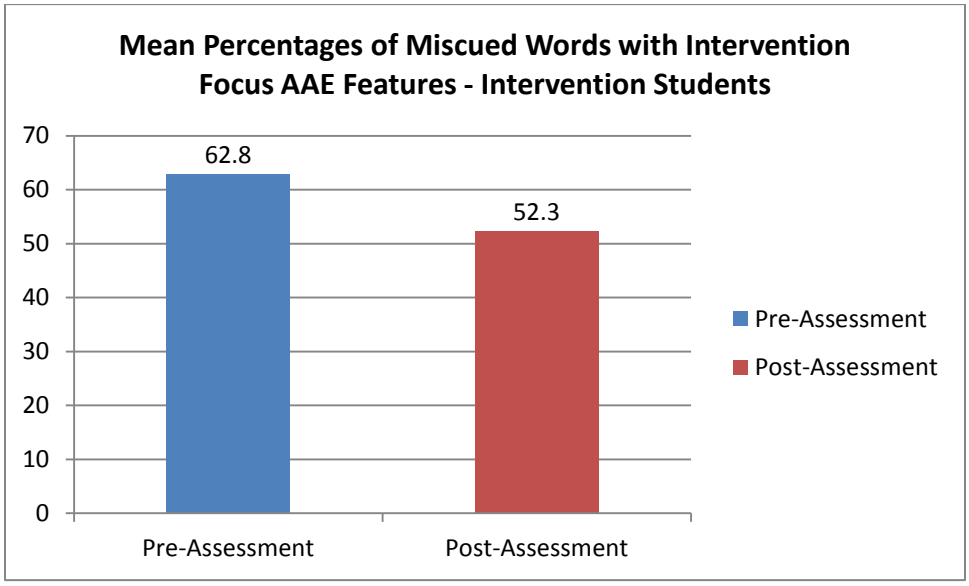
The students in the control group ranged from 50% fewer miscues on words with Intervention Focus AAE Features to zero change, pre- to post-assessment.

Table 4.13: Mean Percentages of Miscued Words with Intervention Focus AAE Features

Group	Pre-Assessment	Post-Assessment	Change
Intervention	62.8%	52.3%	-10.5%
Control	57.8%	36.5%	-21.3%

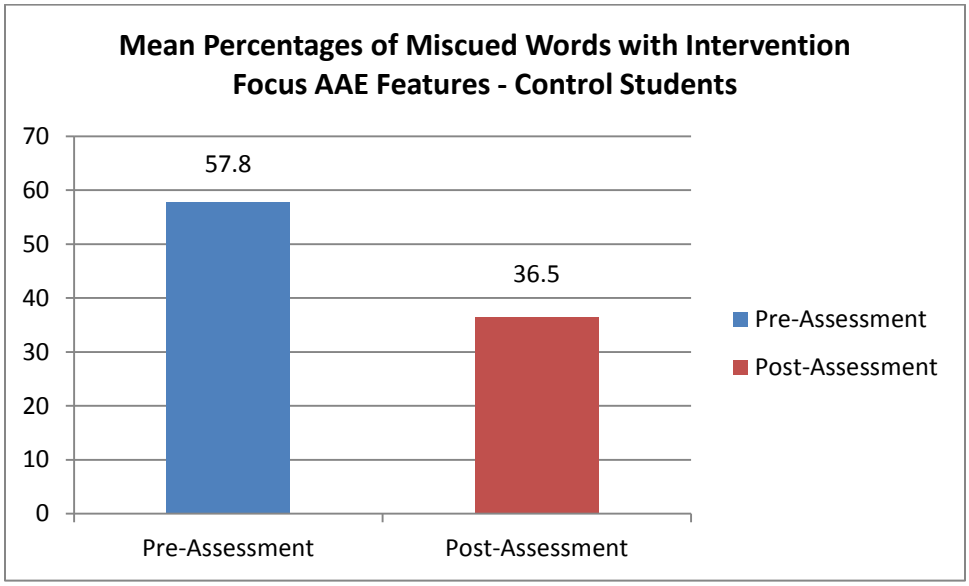
The students in the intervention group miscued 10.5% fewer times on words with Intervention Focus AAE Features pre- to post-assessment, while the students in the control group miscued 21.3% fewer times on the same category of words.

Figure 4.11: Mean Percentages of Miscued Words with Intervention Focus AAE Features – Intervention Students



The mean percentage of miscues on words with Intervention Focus AAE Features went from 62.8% to 52.3% for the intervention group, reflecting a reduction of 10.5%.

Figure 4.12: Mean Percentages of Miscued Words with Intervention Focus AAE Features – Control Students



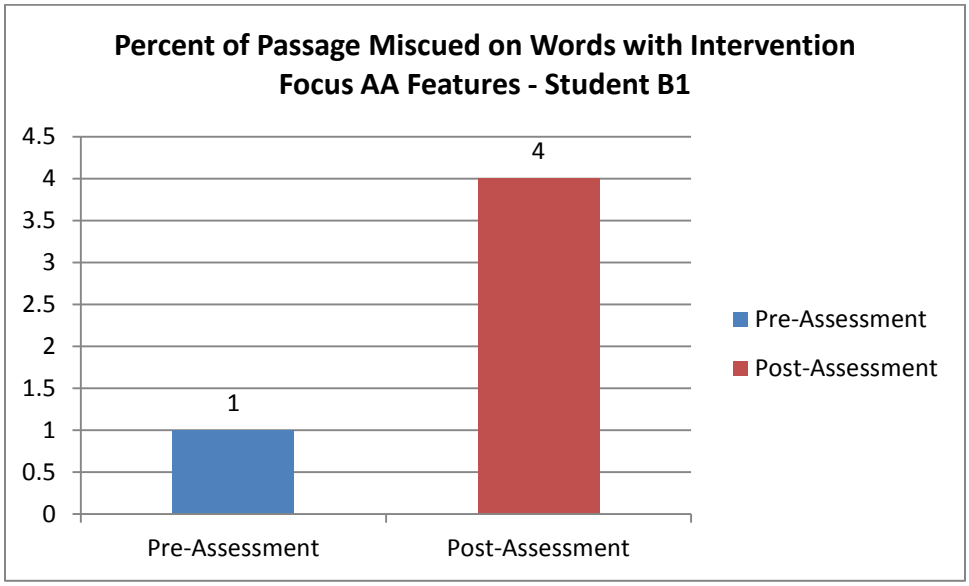
The mean percentage of miscues on words with Intervention Focus AAE Features went from 57.8% to 36.5% for the control group, indicating a reduction of 10.5%.

Table 4.14: Percentage of Passage Miscued on Words with Intervention Focus AAE Features – Intervention Students

Intervention Student	Pre-Assessment	Post-Assessment	Change
B1	1%	4%	+3%
C1	4%	7%	+4%
D1	1%	2%	+1%
F1	3%	2%	-1%

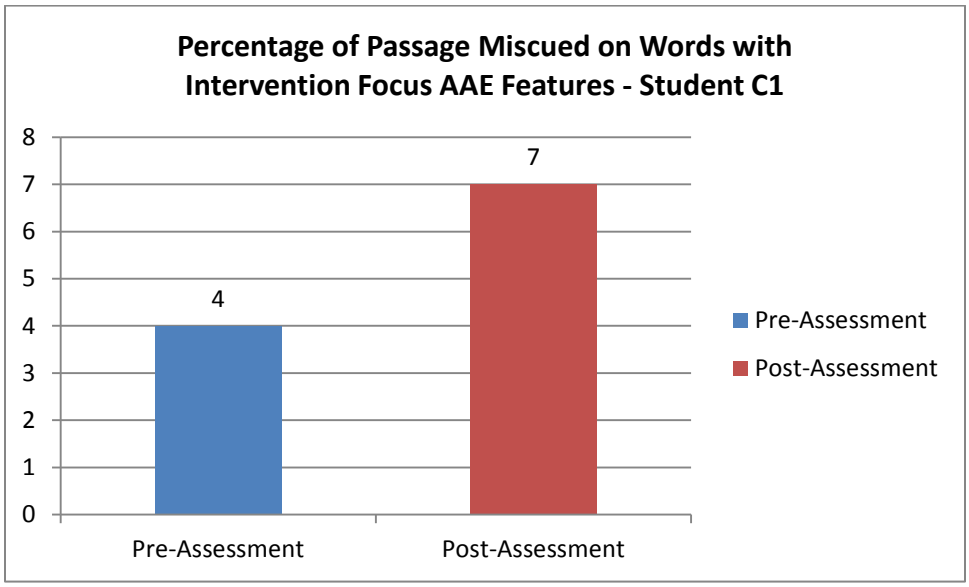
Students in the intervention group miscued between 1% less and 4% more of the passage on words with Intervention Focus AAE Features pre-to post-assessment.

Figure 4.13: Percentage of Passage Miscued on Words with Intervention Focus AAE Features – Student B1



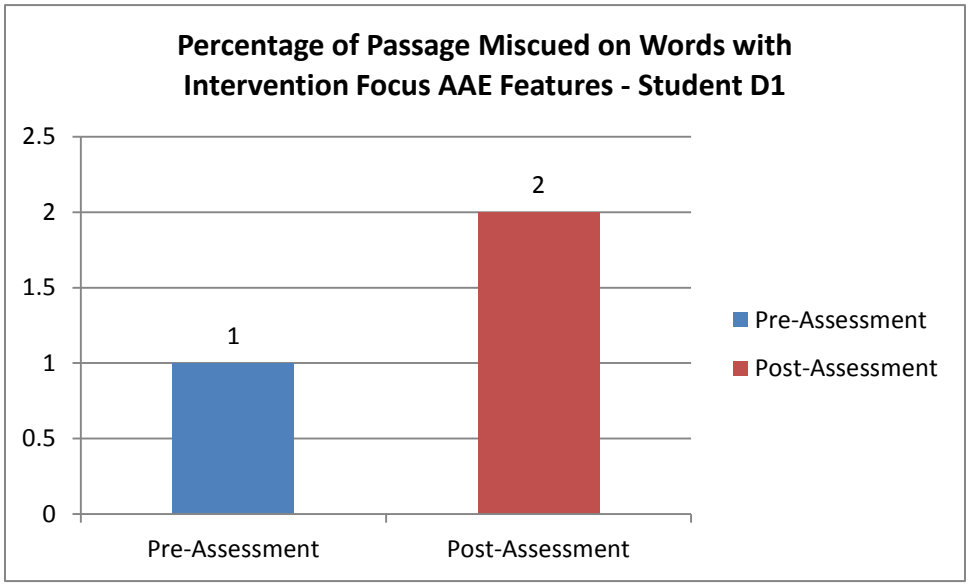
Student B1 miscued an additional 3% of the passage on words with Intervention Focus AAE Features from pre- to post-assessment.

Figure 4.14: Percentage of Passage Miscued on Words with Intervention Focus AAE Features – Student C1



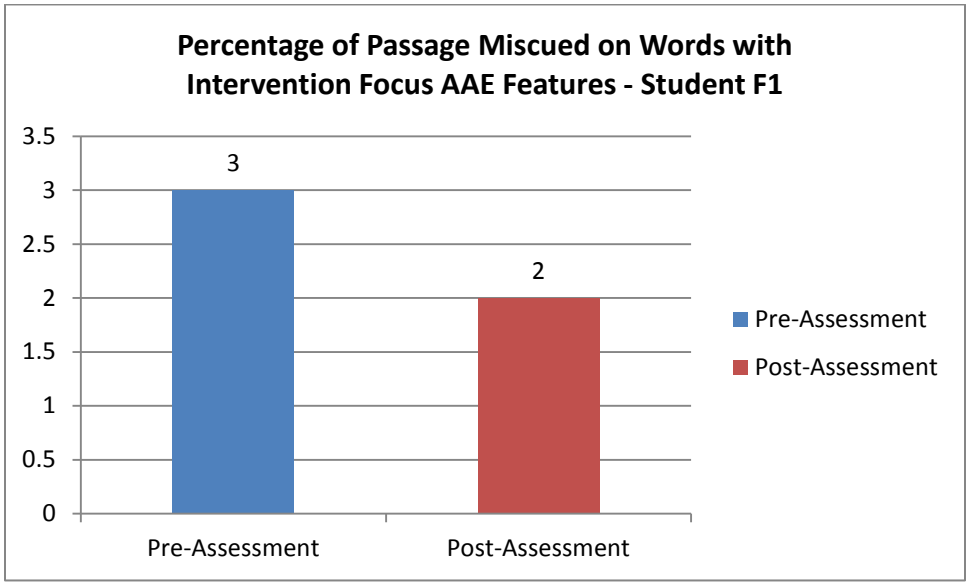
Student C1 miscued an additional 3% of the passage on words with Intervention Focus AAE Features from pre- to post-assessment.

Figure 4.15: Percentage of Passage Miscued on Words with Intervention Focus AAE Features – Student D1



Student D1 miscued an additional 1% of the passage on words with Intervention Focus AAE Features from pre- to post-assessment.

Figure 4.16: Percentage of Passage Miscued on Words with Intervention Focus AAE Features – Student F1



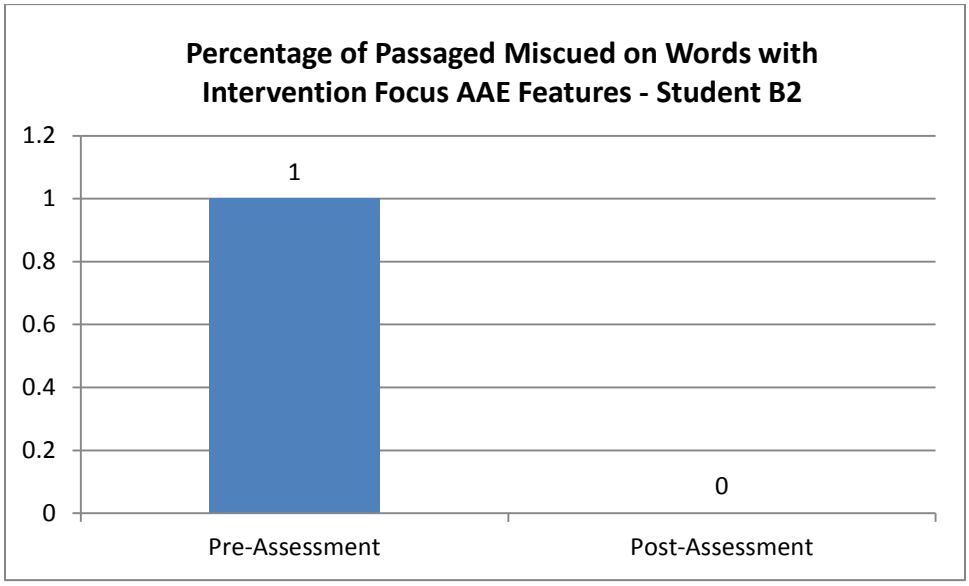
Student F1 miscued 1% less of the passage on words with Intervention Focus AAE Features from pre- to post-assessment.

Table 4.15: Percentage of Passage Miscued on Words with Intervention Focus AAE Feature – Control Students

Control Student	Pre-Assessment	Post-Assessment	Change
B2	1%	0%	-1%
C2	15%	4%	-11%
D2	3%	2%	-1%
F2	2%	2%	0%

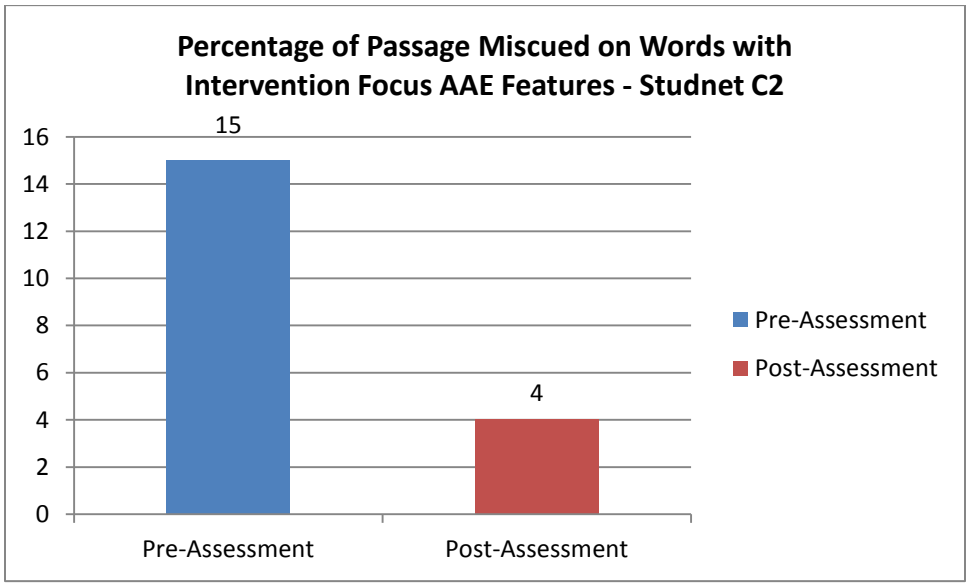
Students in the control group miscued between 11% less and no less nor more of the passage on words with Intervention Focus AAE Features pre-to post-assessment.

Figure 4.17: Percentage of Passaged Miscued on Words with Intervention Focus AAE Features – Student B2



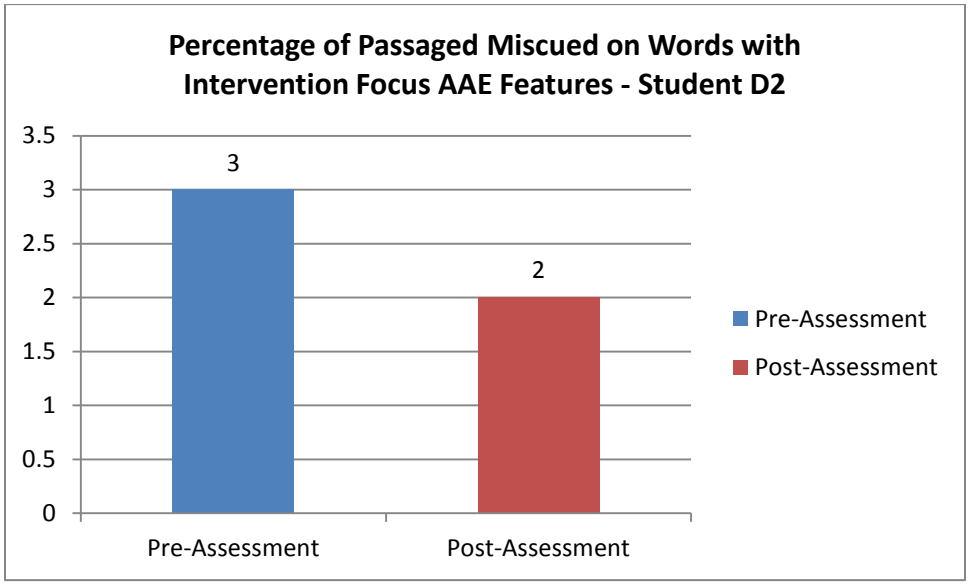
Student B1 miscued 1% less of the passage on words with Intervention Focus AAE Features from pre- to post-assessment.

Figure 4.18: Percentage of Passaged Miscued on Words with Intervention Focus AAE Features – Student C2



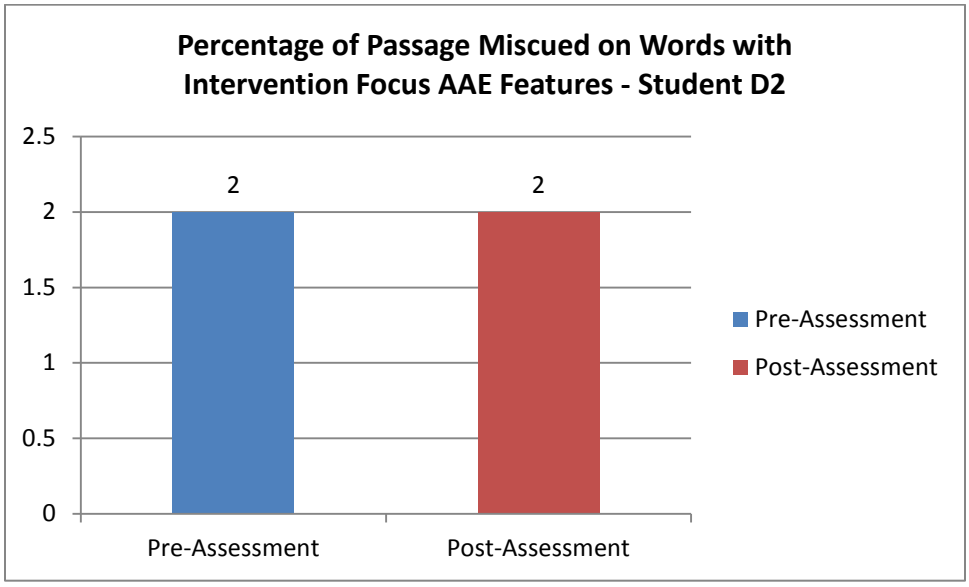
Student C2 miscued 11% less of the passage on words with Intervention Focus AAE Features from pre- to post-assessment.

Figure 4.19: Percentage of Passaged Miscued on Words with Intervention Focus AAE Features – Student D2



Student D2 miscued 1% less of the passage on words with Intervention Focus AAE Features from pre- to post-assessment.

Figure 4.20: Percentage of Passaged Miscued on Words with Intervention Focus AAE Features – Student F2



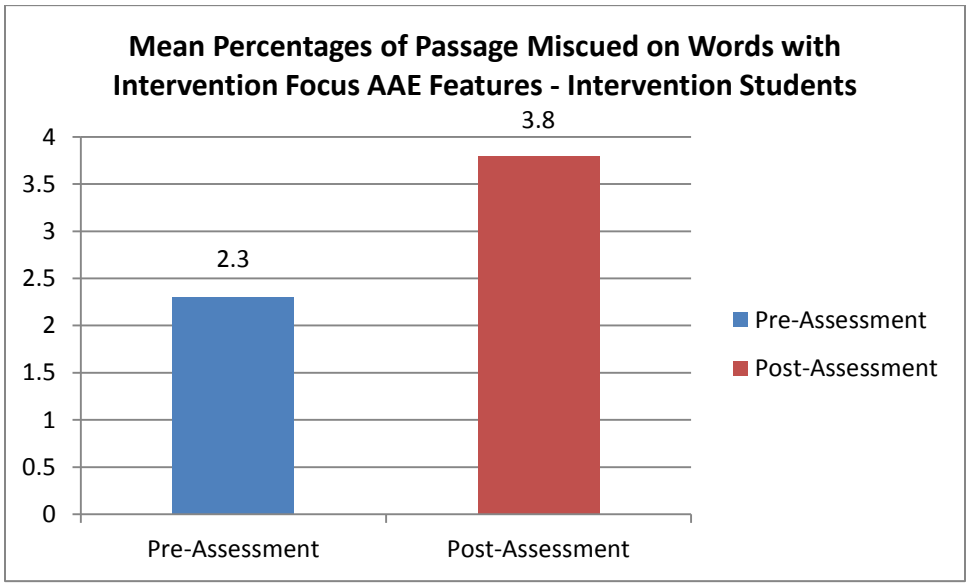
Student D2 remained at 2% of the passage miscued on words with Intervention Focus AAE Features from pre- to post-assessment.

Table 4.16: Mean Percentages of Passage Miscued on Words with Intervention Focus AAE Features

Group	Pre-Assessment	Post-Assessment	Change
Intervention	2.3%	3.8%	+ 1.5%
Control	5.3%	2%	-3.3%

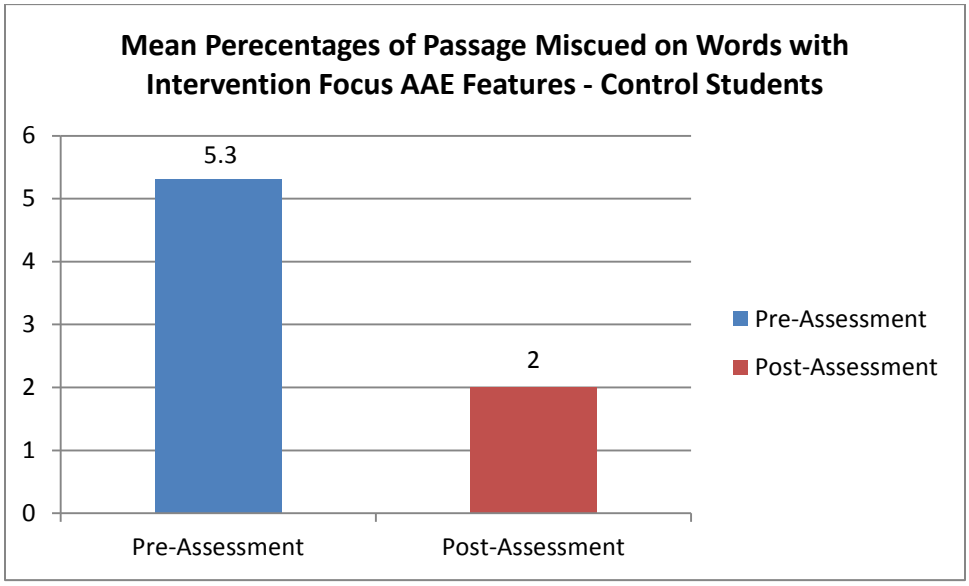
The mean percentage of the passage miscued on words with Intervention Focus AAE Features, from pre- to post-assessment, increased by 1.5% for the students in the intervention group. However, the mean percentage for the students in the control group decreased by 3.3%.

Figure 4.21: Mean Percentages of Passage Miscued on Words with Intervention Focus AAE Features – Intervention Students



The mean percentage of the passage miscued on words with Intervention Focus AAE Features increased from 2.3% to 3.8% from pre- to post-assessment for the intervention students.

Figure 4.22: Mean Percentages of Passage Miscued on Words with Intervention Focus AAE Features – Control Students



The mean percentage of the passage miscued on words with Intervention Focus AAE Features decreased from 5.3% to 2% from pre- to post-assessment for the control students.

Data on Self-Corrections

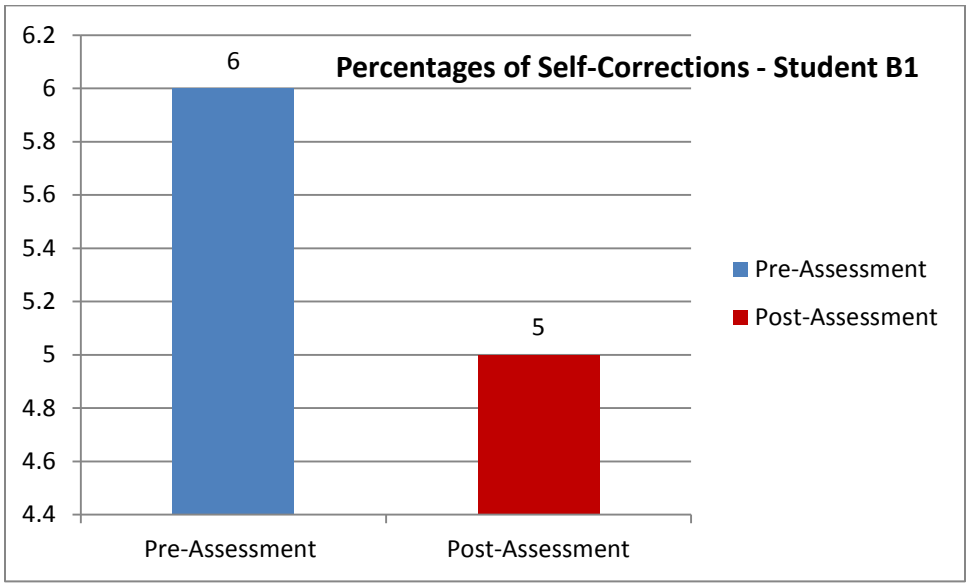
Data on overall self-corrections are presented in Tables 4.17-4.18 and Figures 4.23-4.32, along with an analysis of the data. Data on self-corrections on words with Intervention Focus AAE Features are presented in Tables 4.19-4.21 and Figures 4.33-4.42, followed by an analysis of the data.

Table 4.17: Percentages of Passage Self-Corrected – Intervention Students

Intervention Student	Pre-Assessment	Post-Assessment	Change
B1	6%	5%	-1%
C1	4%	2%	-2%
D1	2%	1%	-1%
F1	1%	0	-1%

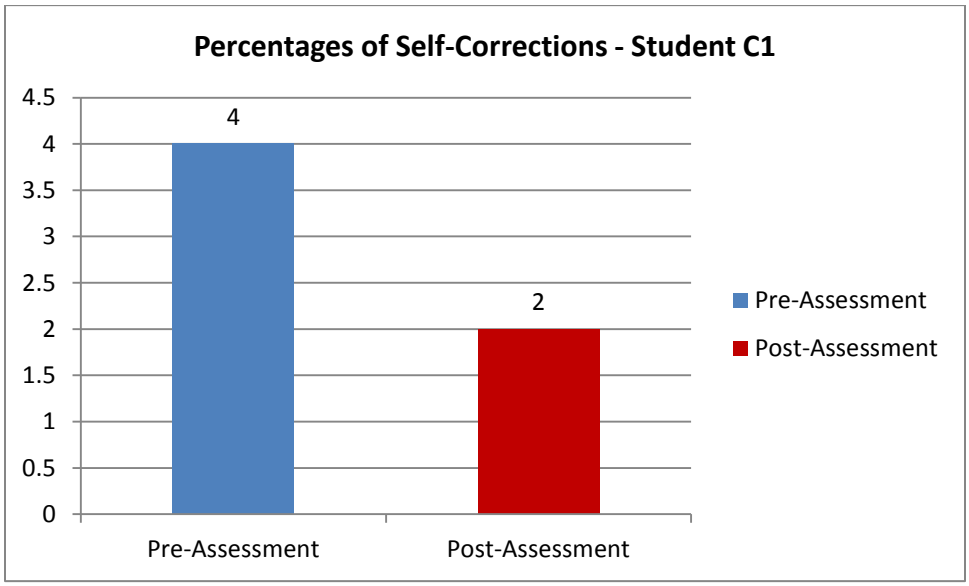
The percentage of the passage self-corrected by the intervention students ranged from a decrease of 1% to a decrease of 2%, pre- to post-assessment.

Figure 4.23: Percentages of Self-Corrections – Student B1



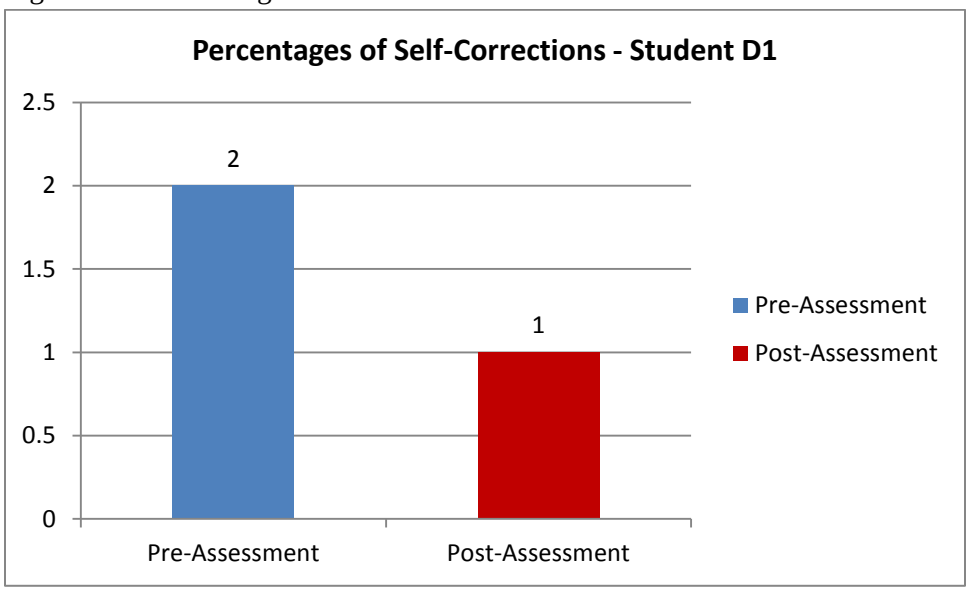
Student B1 self-corrected 6% of the passage on the pre-assessment, but decreased self-corrections by 1% on the post-assessment.

Figure 4.24: Percentages of Self-Corrections – Student C1



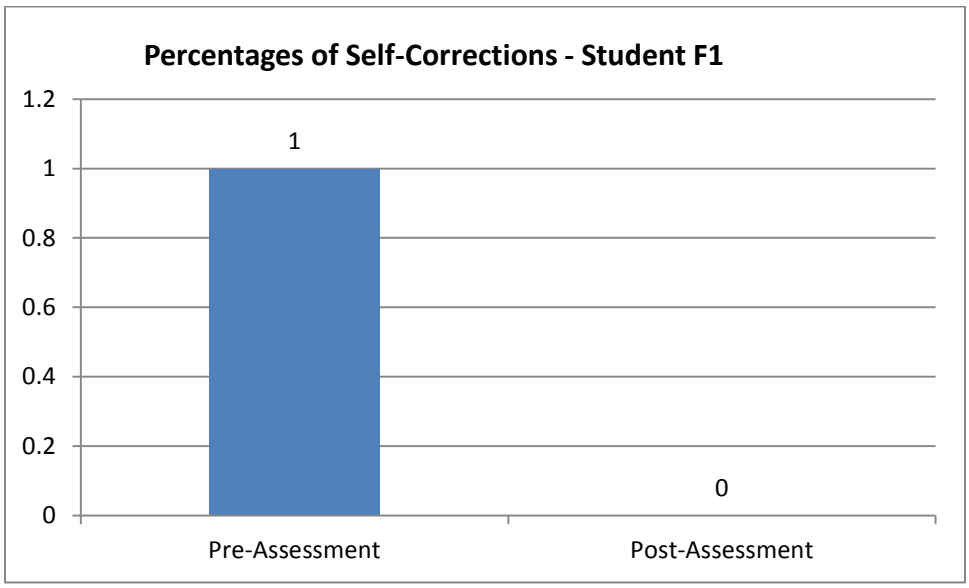
Student C1 self-corrected 4% of the passage on the pre-assessment, but decreased this by 2% on the post-assessment.

Figure 4.25: Percentages of Self-Corrections – Student D1



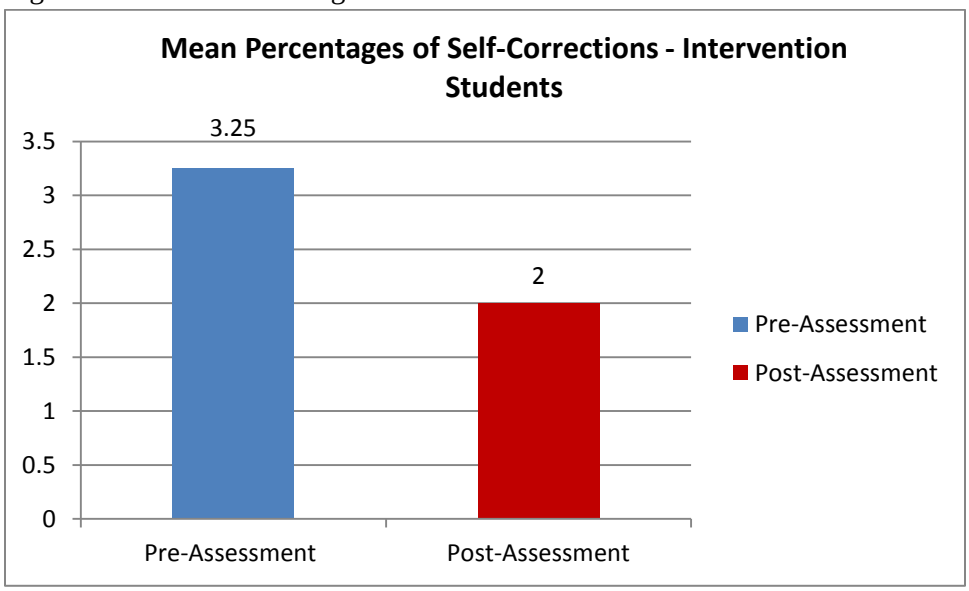
Student C1 self-corrected 2% of the passage on the pre-assessment, but decreased this by 1% on the post-assessment.

Figure 4.26: Percentages of Self-Corrections – Student F1



Student F1 self-corrected 1% of the passage on the pre-assessment, but decreased this by 1% to zero self-corrections on the post-assessment.

Figure 4.27: Mean Percentages of Self-Corrections – Intervention Students



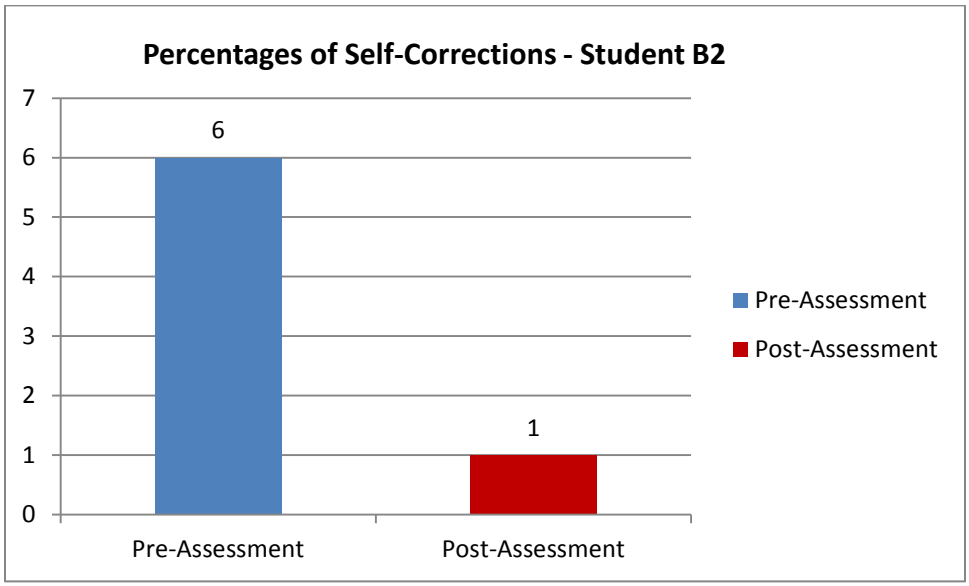
The mean percentage of passage self-corrections decreased from 3.25% on the pre-assessment to 2% on the post-assessment for the students in the intervention group.

Table 4.18: Percentages of Self-Corrections – Control Students

Control Student	Pre-Assessment	Post-Assessment	Change
B2	6%	1%	-5%
C2	5%	2%	-3%
D2	0	1%	+1%
F2	1%	.8%	-.2%

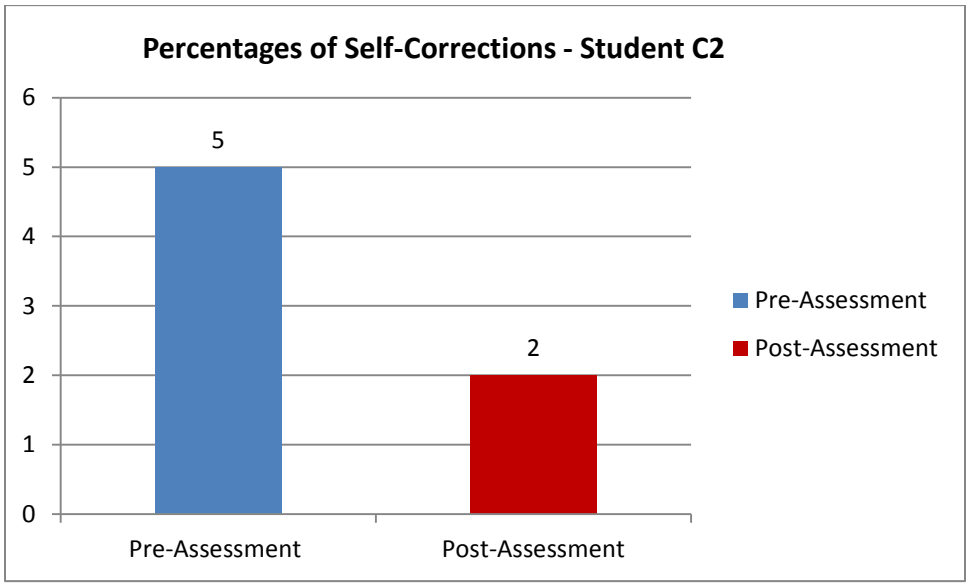
The percentage of the passage self-corrected by the control students ranged from a decrease of 5% to an increase of 1%, pre- to post-assessment.

Figure 4.28: Percentages of Self-Corrections – Student B2



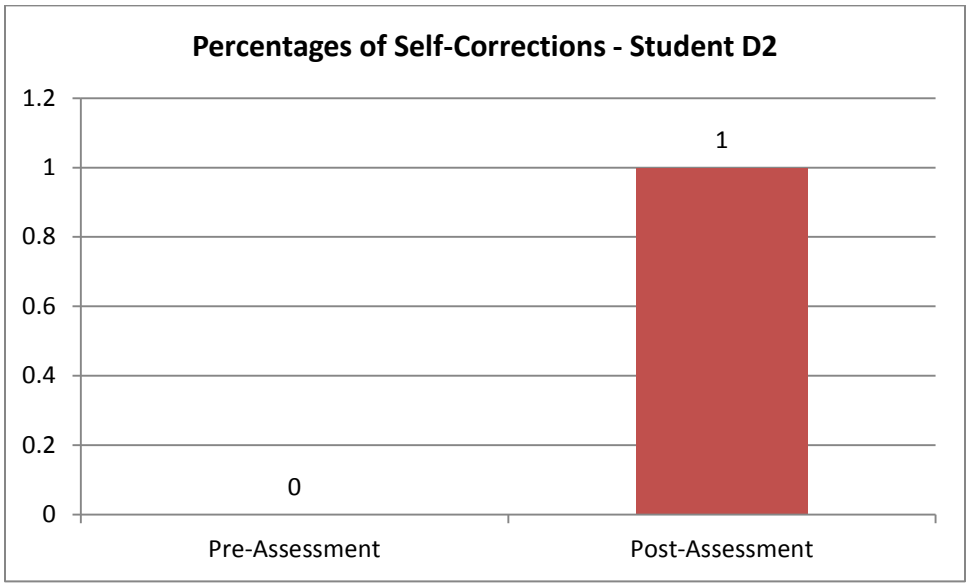
Student B2 self-corrected 6% of the passage on the pre-assessment, but decreased this by 5% on the post-assessment.

Figure 4.29: Percentages of Self-Corrections – Student C2



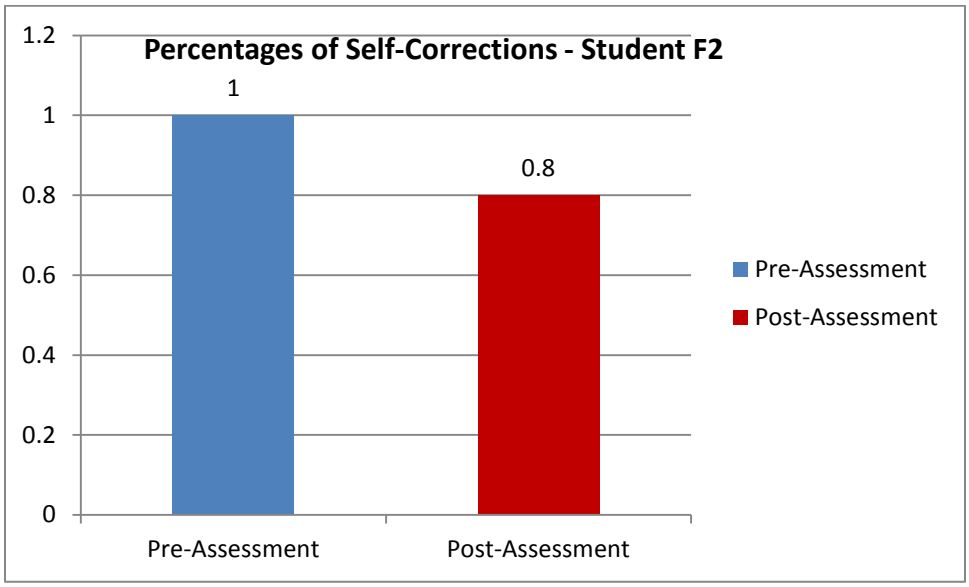
Student C2 self-corrected 5% of the passage on the pre-assessment, but decreased this by 3% on the post-assessment.

Figure 4.30: Percentages of Self-Corrections – Student D2



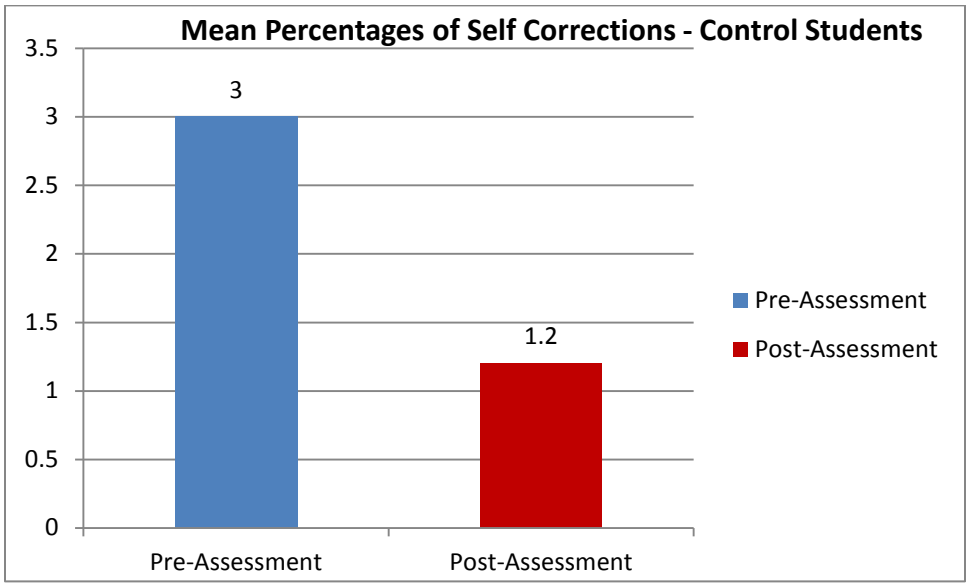
Student D2 self-corrected 0% of the passage on the pre-assessment, but increased this by 1% on the post-assessment.

Figure 4.31: Percentages of Self-Corrections – Student F2



Student F2 self-corrected 1% of the passage on the pre-assessment, but decreased this by .2% on the post-assessment.

Figure 4.32: Mean Percentages of Self-Corrections – Control Students



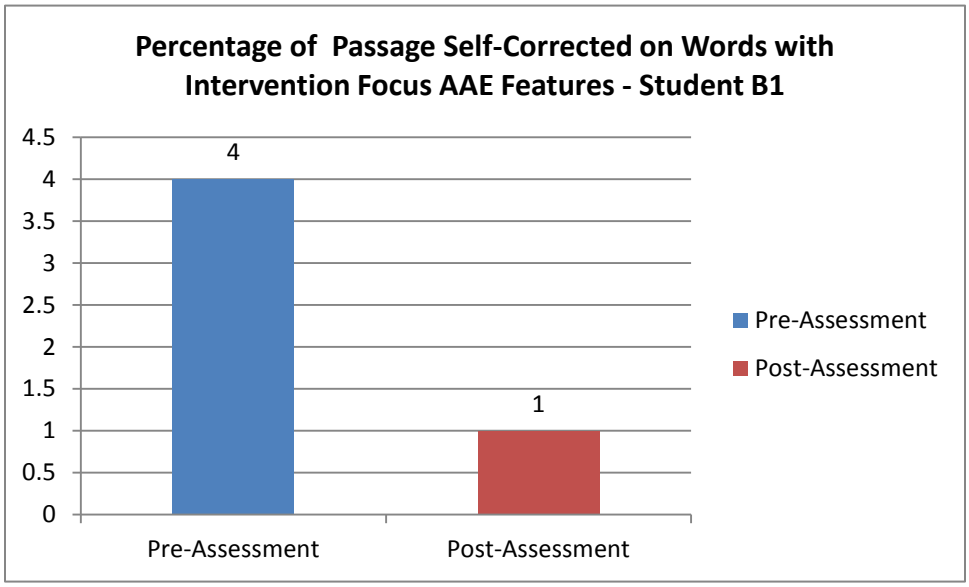
The mean percentage of passage self-corrections decreased from 3% on the pre-assessment to 1.2% on the post-assessment for the students in the control group.

Table 4.19: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features

Intervention Student	Pre-Assessment	Post-Assessment	Change
B1	4%	1%	-3%
C1	2%	1%	+1%
D1	.3%	1%	+ .7%
F1	1%	0%	-1%

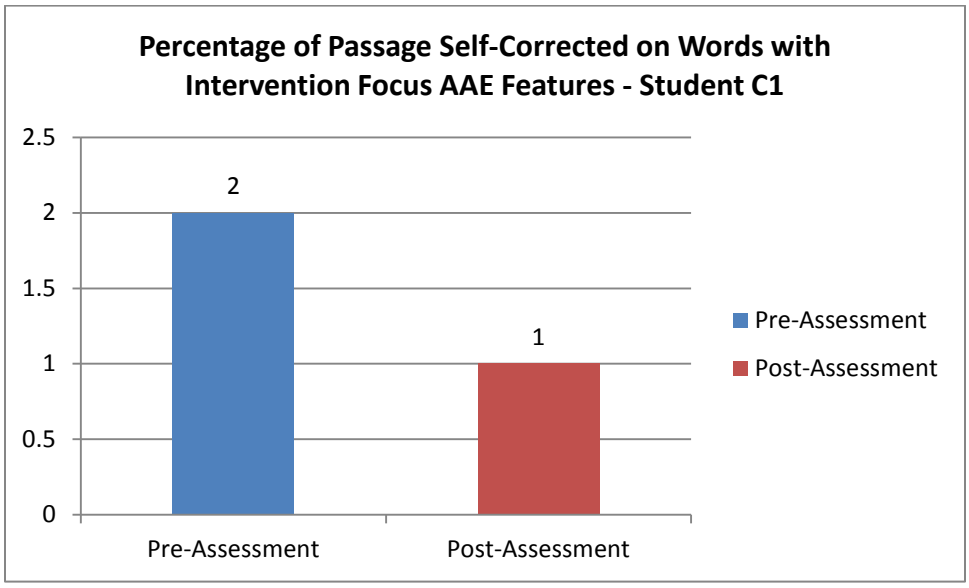
The percentage of the passage that was self-corrected on words with Intervention Focus AAE Features, pre- to post-assessment, ranged from a decrease of 3% to an increase of 1% for the intervention students.

Figure 4.33: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student B1



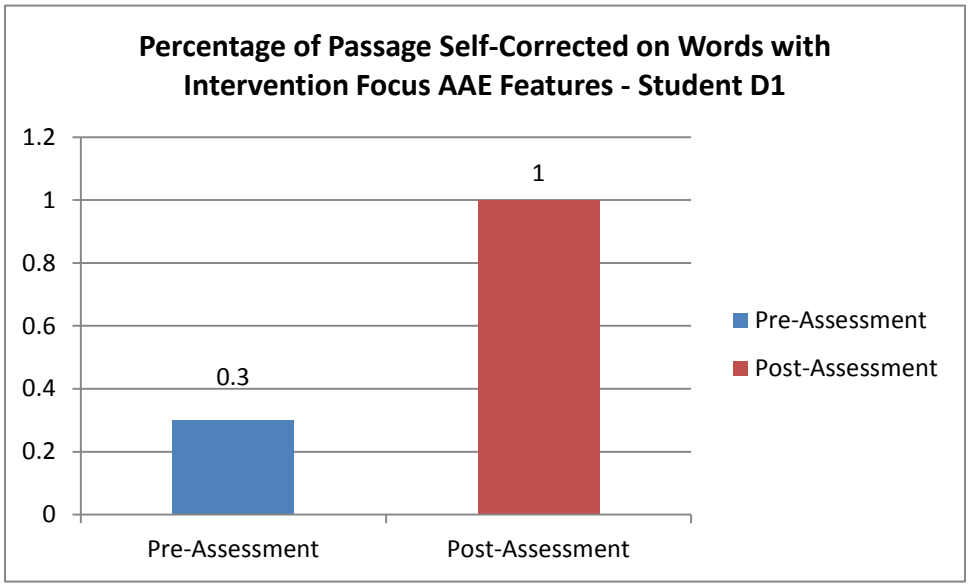
Student B1's self-corrections on words with Intervention Focus AAE Features decreased from 4% of the passage on the pre-assessment to 1% on the post-assessment.

Figure 4.34: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student C1



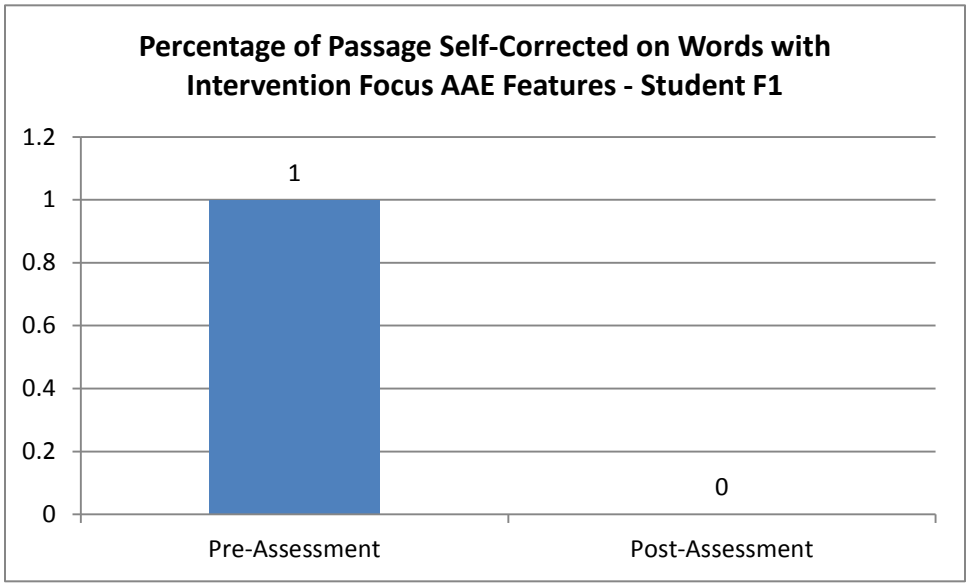
Student C1's self-corrections on words with Intervention Focus AAE Features decreased from 2% of the passage on the pre-assessment to 1% on the post-assessment.

Figure 4.35: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student D1



Student D1's self-corrections on words with Intervention Focus AAE Features increased from .3% of the passage on the pre-assessment to 1% on the post-assessment.

Figure 4.36: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student F1



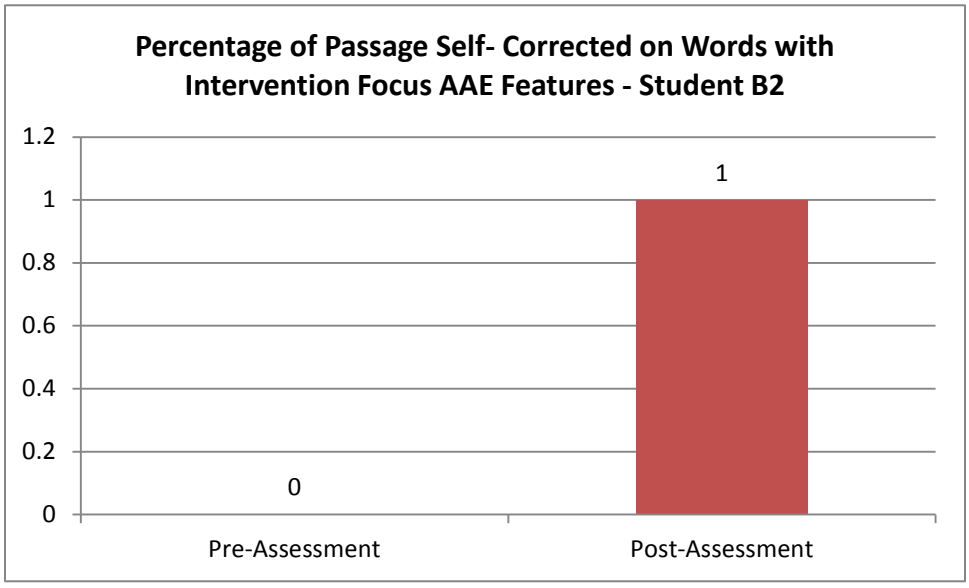
Student F1's self-corrections on words with Intervention Focus AAE Features decreased from 1% of the passage on the pre-assessment to zero on the post-assessment.

Table 4.20: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Control Students

Control Student	Pre-Assessment	Post-Assessment	Change
B2	0%	1%	+1%
C2	4%	.7%	-3.3%
D2	0%	1%	+1%
F2	.3%	.2%	-.1%

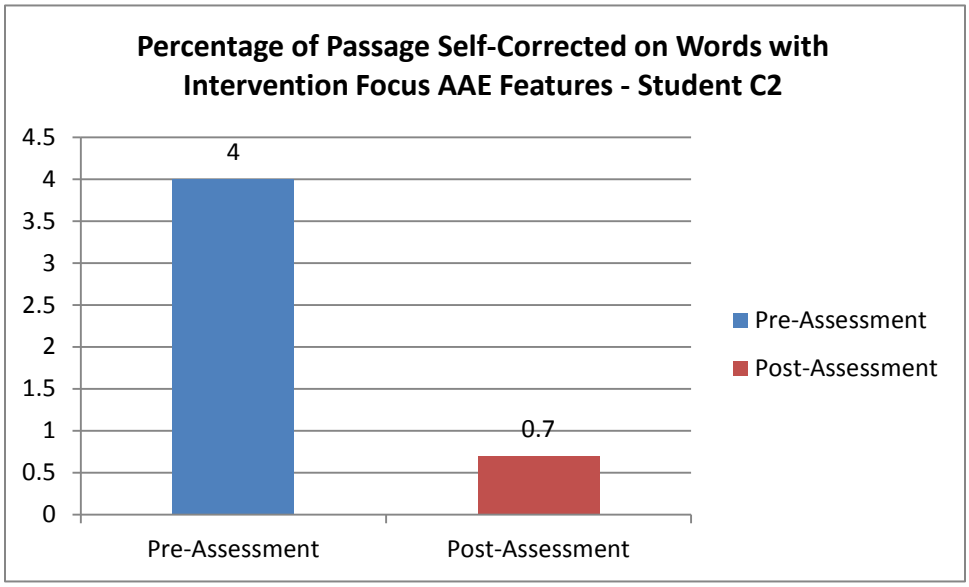
The percentage of the passage that was self-corrected on words with Intervention Focus AAE Features, pre- to post-assessment, ranged from a decrease of 3.3% to an increase of 1% for the control students.

Figure 4.37: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student B2



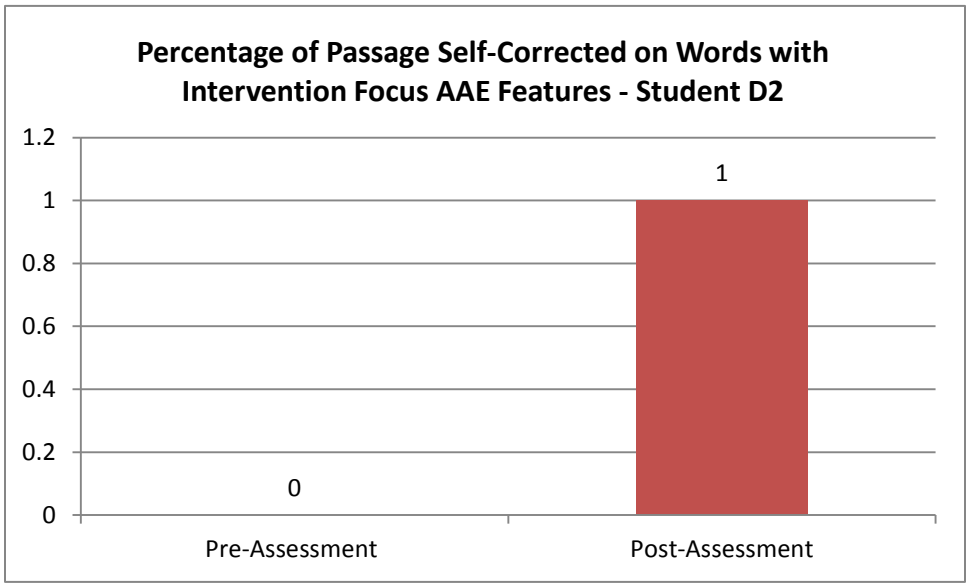
Student B2's self-corrections on words with Intervention Focus AAE Features increased from zero on the pre-assessment to 1% of the passage on the post-assessment.

Figure 4.38: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student C2



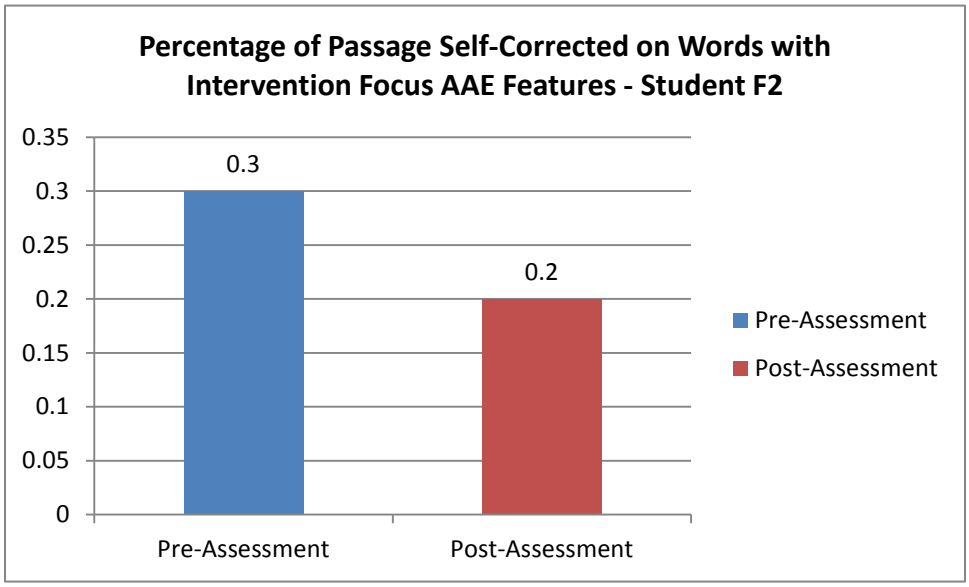
Student C2's self-corrections on words with Intervention Focus AAE Features decreased from 4% of the passage on the pre-assessment to .7% on the post-assessment.

Figure 4.39: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student D2



Student D2's self-corrections on words with Intervention Focus AAE Features increased from zero on the pre-assessment to 1% of the passage on the post-assessment.

Figure 4.40: Percentage of Passage Self-Corrected on Words with Intervention Focus AAE Features – Student F2



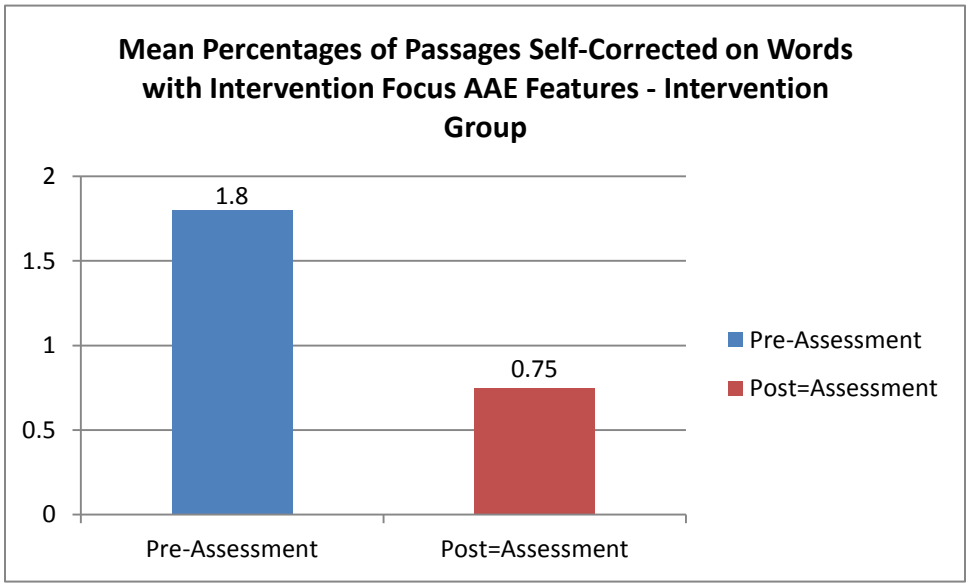
Student F2's self-corrections on words with Intervention Focus AAE Features decreased from .3% of the passage on the pre-assessment to .2% on the post-assessment.

Table 4.21: Mean Percentages of Passage Self-Corrected on Words with Intervention Focus AAE Features

Group	Pre-Assessment	Post-Assessment	Change
Intervention	1.8%	.75%	-1.1%
Control	1.1%	.73%	.37%

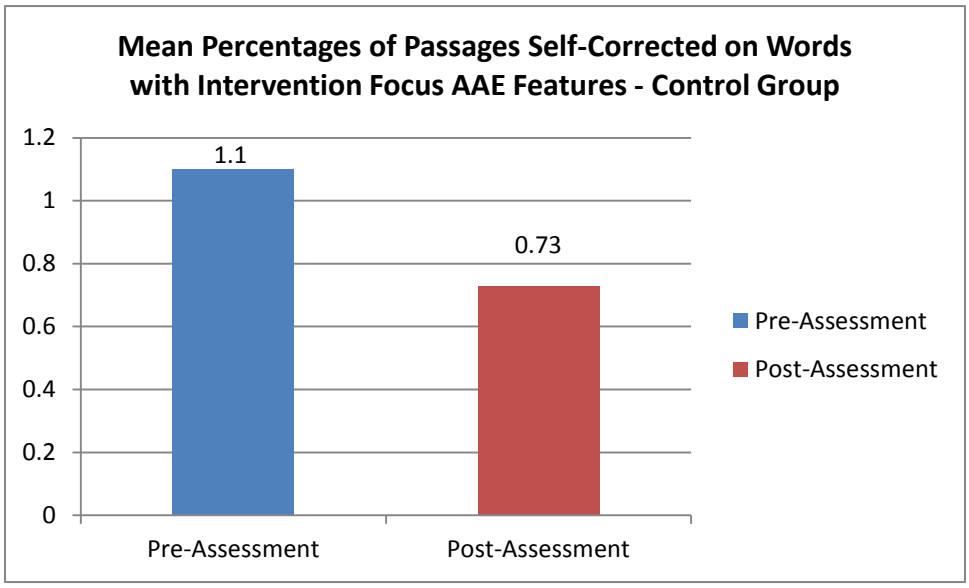
The mean percentage of the passage self-corrected on words with Intervention Focus AAE Features decreased 1.1%, pre- to post-assessment, for the intervention students. However, the mean percentage increased .37% for the control students.

Figure 4.41: Mean Percentages of Passages Self-Corrected on Words with Intervention Focus AAE Features – Intervention Students



The mean percentage of the passage self-corrected on words with Intervention Focus AAE Features decreased from 1.8% to .75% for the students in the intervention group.

Figure 4.42: Mean Percentages of Passages Self-Corrected on Words with Intervention Focus AAE Features – Control Students



The mean percentage of the passage self-corrected on words with Intervention Focus AAE Features decreased from 1.1% to .73% for the students in the control group.

Data on Misspellings: Writing Samples

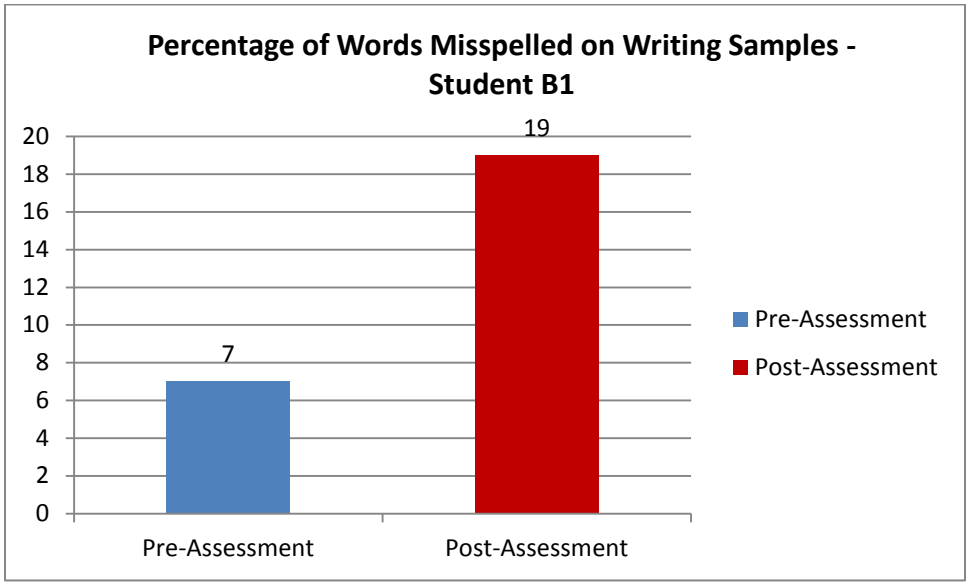
Data on overall misspellings in the writing samples are presented in Tables 4.22-4.24 and Figures 4.43-4.52, along with an analysis of the data. Data on misspellings on words with Intervention Focus AAE Features are presented in Tables 4.25-4.27 and Figures 4.53-4.62, followed by an analysis of the data.

Table 4.22: Misspellings on Writing Samples – Intervention Students

Intervention Student	Pre-Assessment: Number of Words Written; Number and % mispelled	Post-Assessment: Number of Words Written; Number and % misspelled	Change
B1	28 words; 2; 7% misspelled	53 words; 10; 19% misspelled	+25 words; + 8; +12% misspellings
C1	35 words; 3; 9% misspelled	61 words; 12; 20% misspelled	+26 words; + 9; + 11% misspellings
D1	12 words; 1; 8% misspelled	46 words; 12; 26% misspelled	+34 words; +11; +18% misspellings
F1	5 words; 3; 60% misspelled	12 words; 3; 25% misspelled	+7 words; +0; -35% misspellings

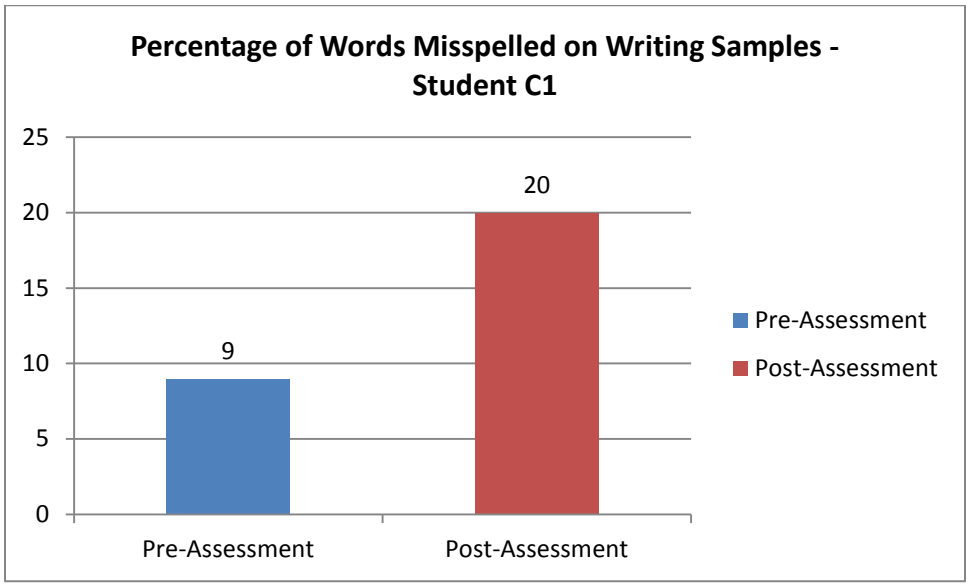
On the writing samples, the intervention students ranged from an additional 7 to 34 words written; an additional 0 to 11 words misspelled; and a decrease of 35% to an increase of 18% of the sample misspelled, pre- to post-assessment.

Figure 4.43 Percentage of Word Misspelled on Writing Samples – Student B1



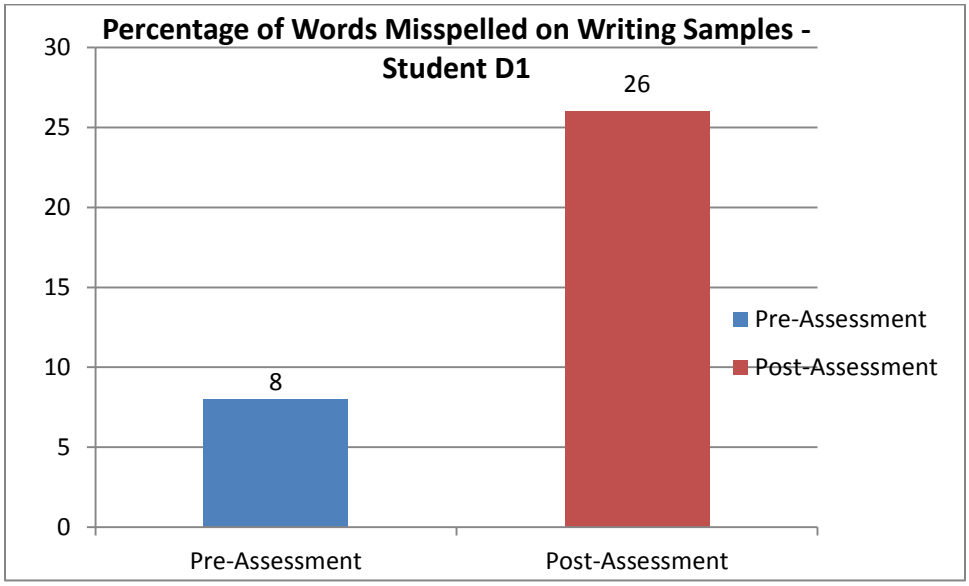
Student B1 misspelled an additional of 12% of the writing sample, pre- to post-assessment.

Figure 4.44: Percentage of Word Misspelled on Writing Samples – Student C1



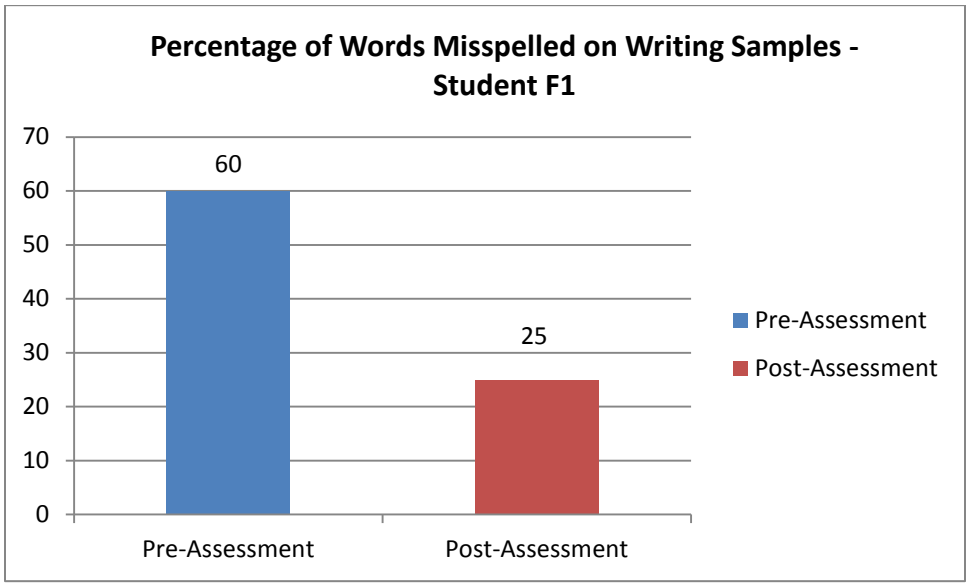
Student C1 misspelled an additional of 11% of the writing sample, pre- to post-assessment.

Figure 4.45: Percentage of Word Misspelled on Writing Samples – Student D1



Student D1 misspelled an additional of 18% of the writing sample, pre- to post-assessment.

Figure 4.46: Percentage of Word Misspelled on Writing Samples – Student F1



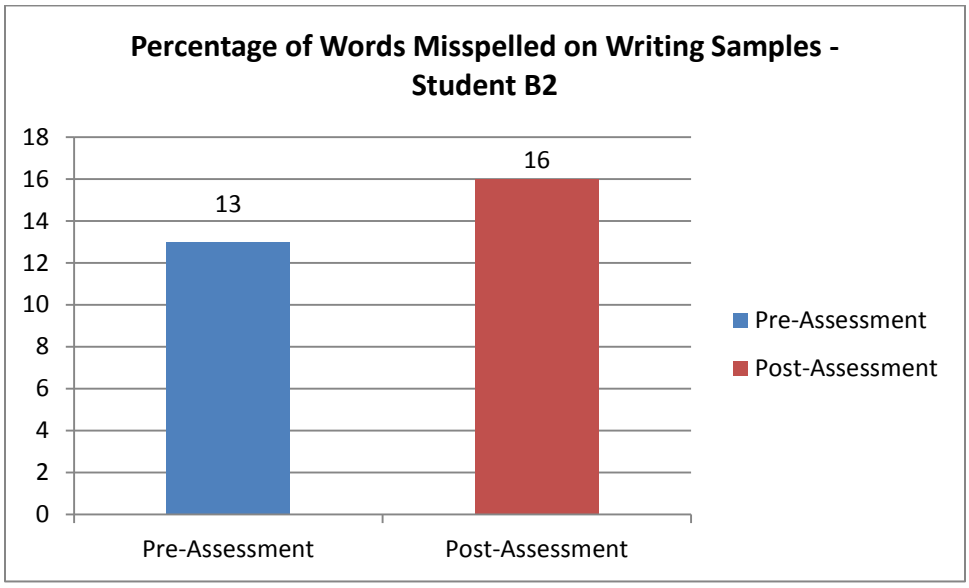
Student F1 misspelled 35% less of the writing sample, pre- to post-assessment.

Table 4.23: Mispellings on Writing Samples – Control Students

Control Student	Pre-Assessment: Number of Words Written; Number and % misspelled	Post-Assessment: Number of Words Written; Number and % misspelled	Change
B2	63 words; 8; 13% misspelled	68 words; 11; 16% misspelled	+5 words; +3; +3% misspellings
C2	16 words; 9; 56% misspelled	29 words; 8; 28% misspelled	+13 words; -1; -28% misspellings
D2	6 words; 1; 17% misspelled	9 words; 2; 22% misspelled	+3 words; +1; +5% misspellings
F2	18 words; 0; 0% misspelled	10 words; 1; 10% misspelled	-8 words; +1; +10% misspellings

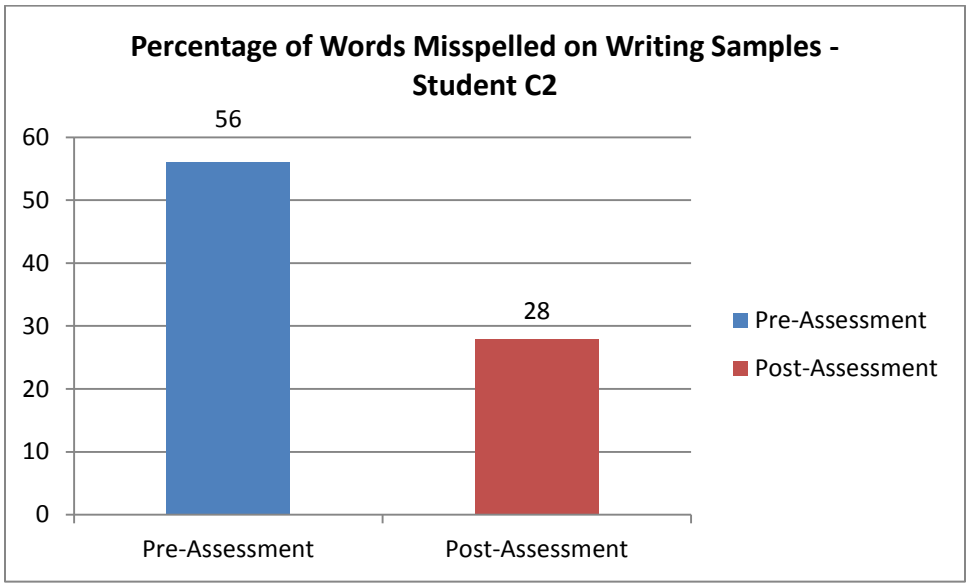
On the writing samples, the control students ranged from 8 fewer to 13 additional words written; 1 fewer to 3 additional words misspelled; and a decrease of 28% to an increase of 10% of the sample misspelled, pre- to post-assessment.

Figure 4.47: Percentage of Words Misspelled on Writing Samples – Student B2



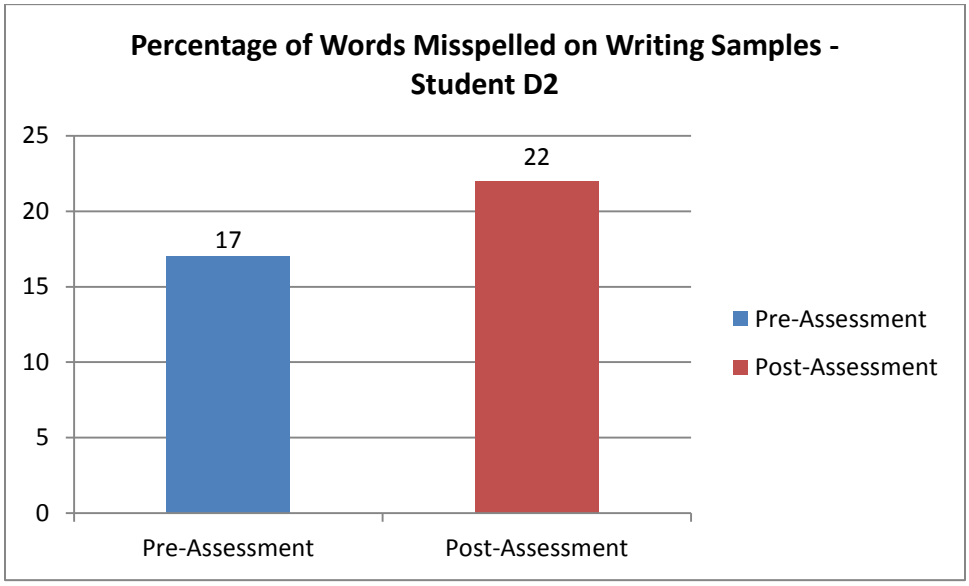
Student B2 misspelled 3% more of the writing sample, pre- to post-assessment.

Figure 4.48: Percentage of Words Misspelled on Writing Samples – Student C2



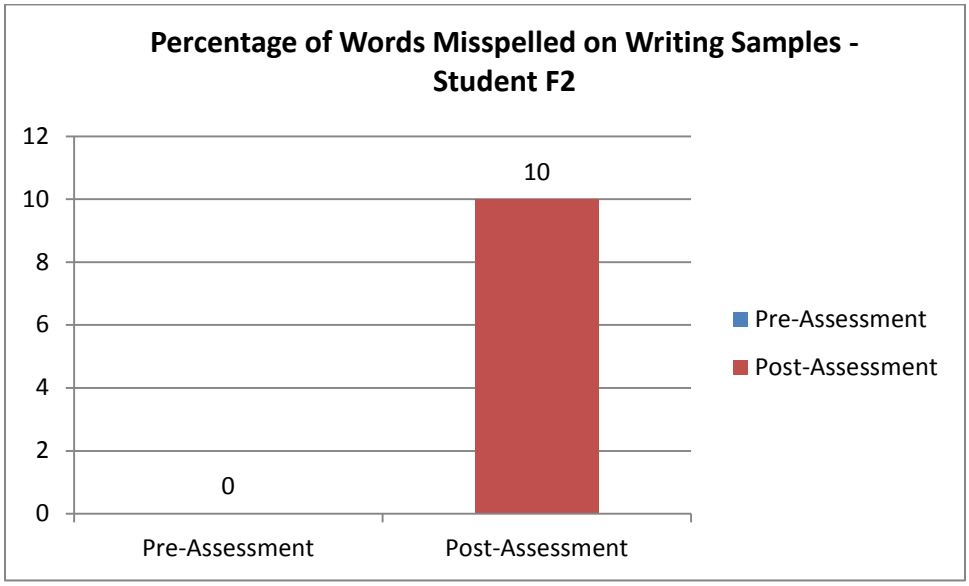
Student C2 misspelled 28% less of the writing sample, pre- to post-assessment.

Figure 4.49: Percentage of Words Misspelled on Writing Samples – Student D2



Student D2 misspelled 5% more of the writing sample, pre- to post-assessment.

Figure 4.50: Percentage of Words Misspelled on Writing Samples – Student F2



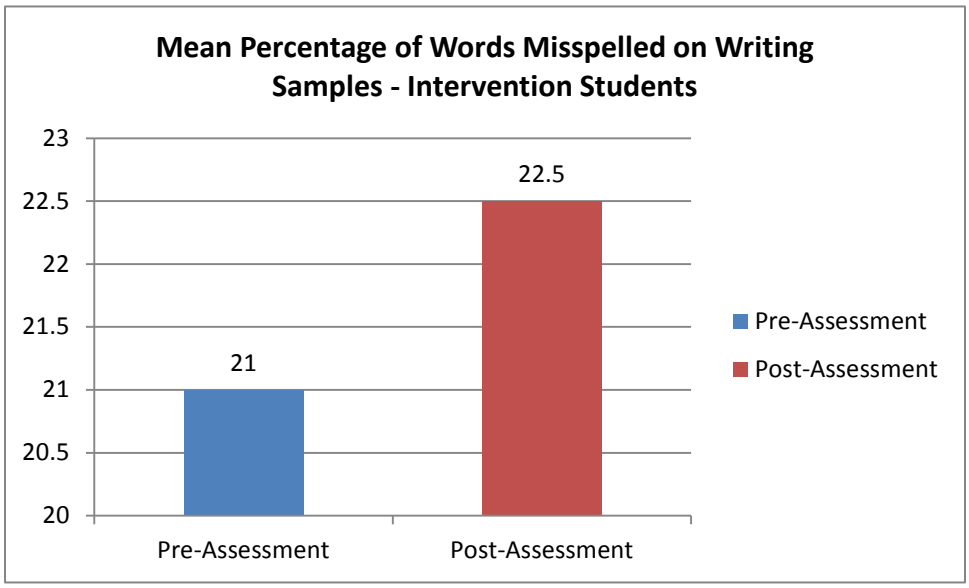
Student F2 misspelled 10% more of the writing sample, pre- to post-assessment.

Table 4.24: Mean Percentages of Words Misspelled on Writing Samples

Group	Pre-Assessment	Post-Assessment	Change
Intervention	21%	22.5%	+1.5%
Control	21.5%	19%	-2.5%

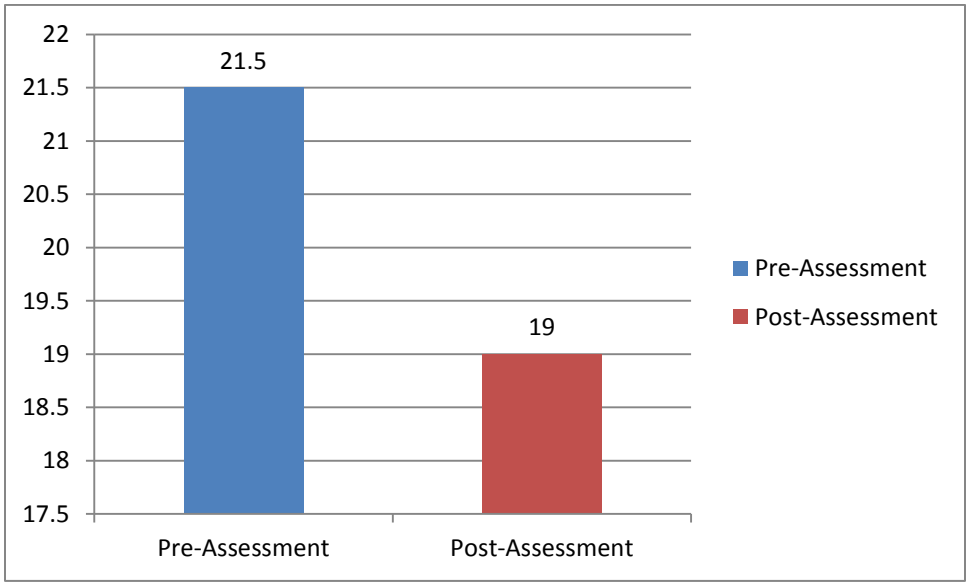
The mean percentage of misspellings on the writing sample increased 1.5% for the intervention students, while they decreased 2.5% for the control students.

Figure 4.51: Mean Percentage of Words Misspelled on Writing Samples – Intervention Students



The mean percentage of misspellings on the writing sample went from 21% to 22.5% for the students in the intervention group.

Figure 4.52: Mean Percentage of Words Misspelled on Writing Samples – Control Students



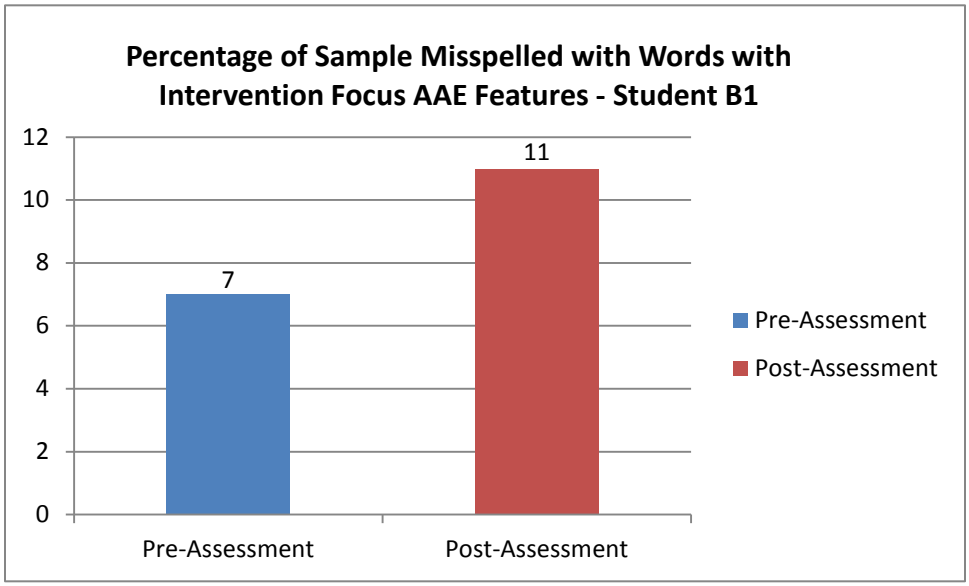
The mean percentage of misspellings on the writing sample went from 21.5% to 19% for the students in the control group.

Table 4.25: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Intervention Group

Intervention Student	Pre-Assessment: Percent of Sample Misspelled with Words with Intervention Focus AAE Features	Post-Assessment: Percent of Sample Misspelled with Words with Intervention Focus AAE Features	Change
B1	7%	11%	+4%
C1	6%	15%	+9%
D1	8%	20%	+12%
F1	40%	17%	-23%

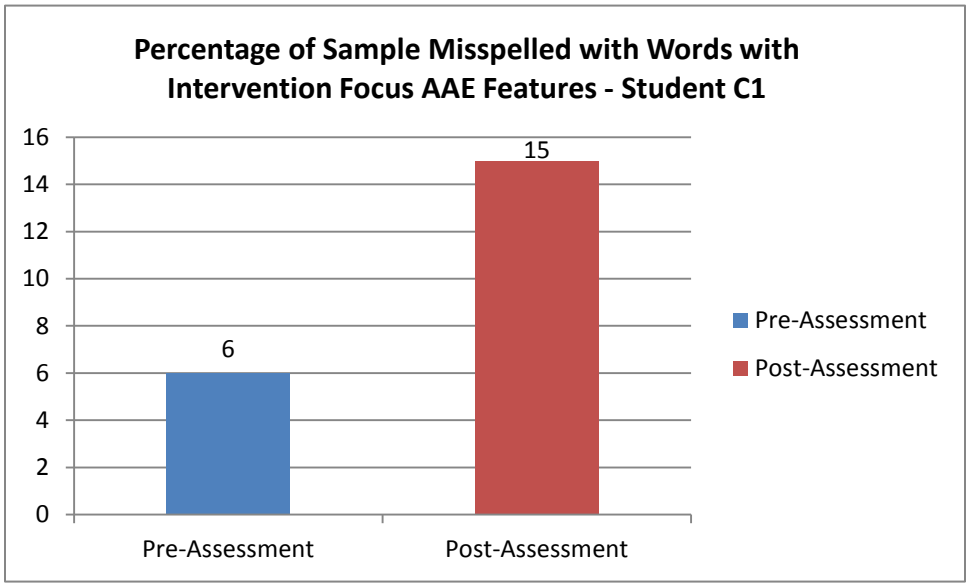
The percentages of the writing samples misspelled with words that had Intervention Focus AAE Features, pre- to post-assessment, ranged from 23% fewer misspellings to 12% more misspellings for the intervention students.

Figure 4.53: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student B1



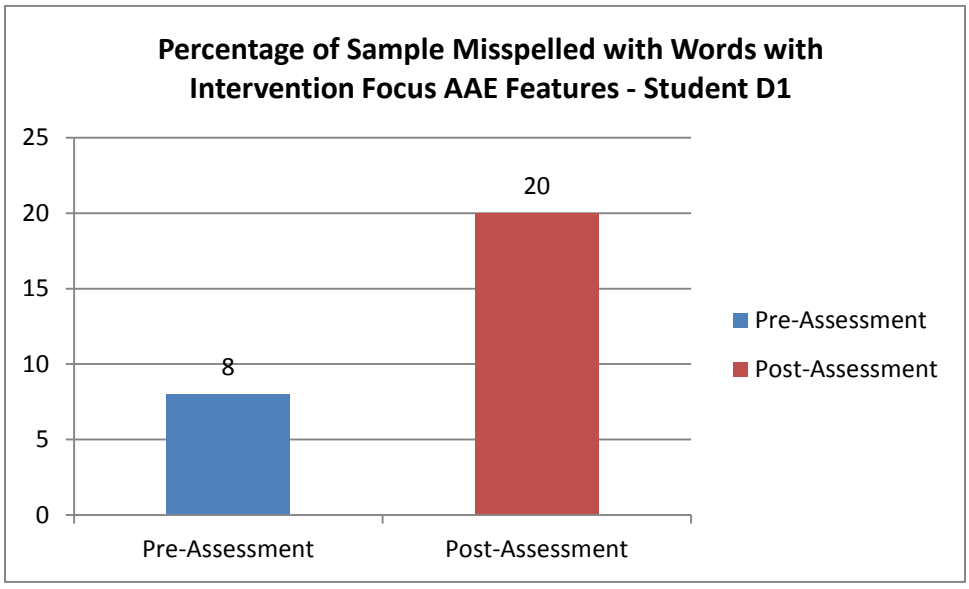
Student B1 misspelled an additional 4% of the writing sample with words that had Intervention Focus AAE Features, pre- to post-assessment.

Figure 4.54: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student C1



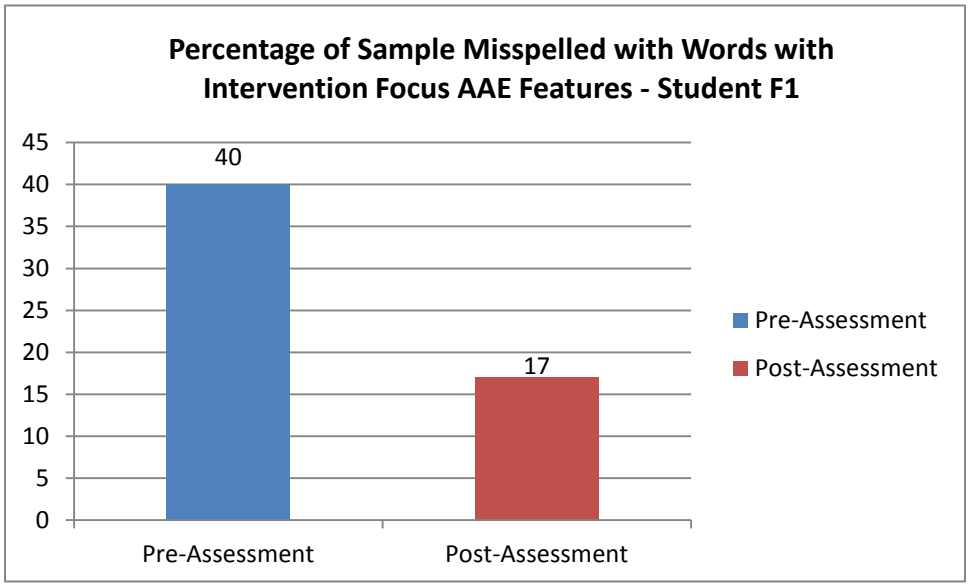
Student C1 misspelled an additional 9% of the writing sample with words that had Intervention Focus AAE Features, pre- to post-assessment.

Figure 4.55: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student D1



Student D1 misspelled an additional 12% of the writing sample with words that had Intervention Focus AAE Features, pre- to post-assessment.

Figure 4.56: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student F1



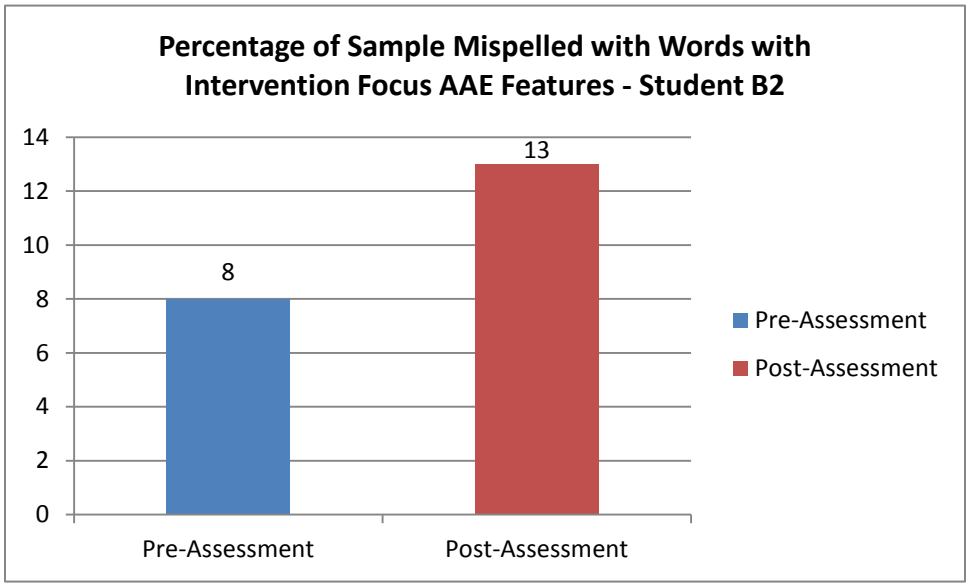
Student F1 misspelled 23% less of the writing sample with words that had Intervention Focus AAE Features, pre- to post-assessment.

Table 4.26: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Control Group

Control Student	Pre-Assessment: Percent of Sample Misspelled with Words with Intervention Focus AAE Features	Post-Assessment: Percent of Sample Misspelled with Words with Intervention Focus AAE Features	Change
B2	8%	13%	+5%
C2	38%	14%	-24%
D2	17%	11%	-6%
F2	0%	0%	0%

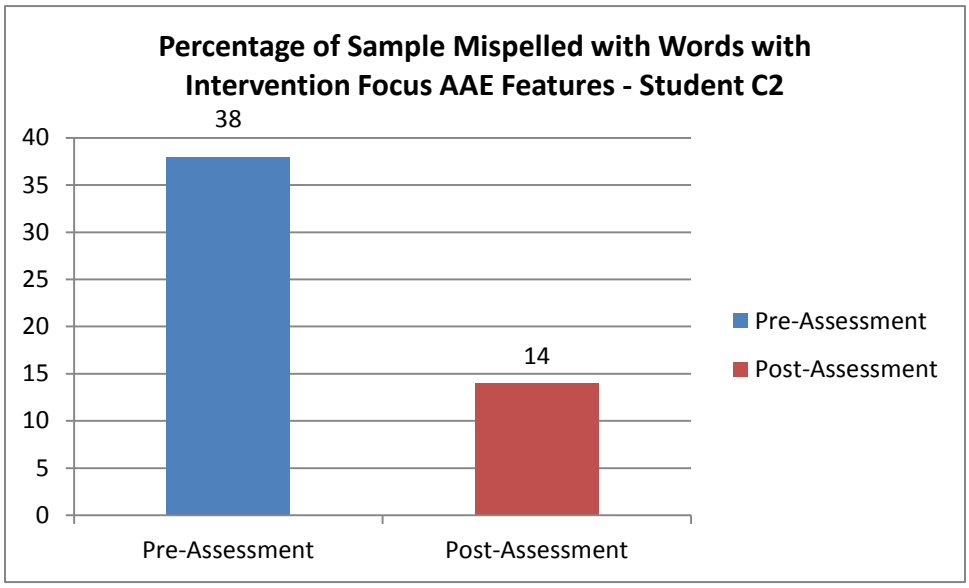
The percentages of the writing samples misspelled with words that had Intervention Focus AAE Features, pre- to post-assessment, ranged from 24% fewer misspellings to 5% more misspellings for the control students.

Figure 4.57: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student B2



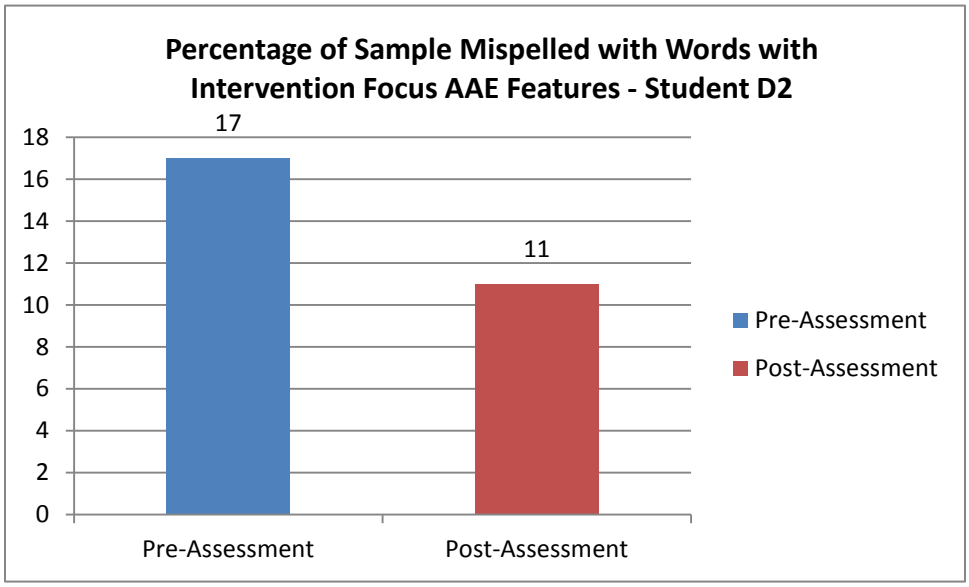
Student B2 misspelled an additional 5% of the writing sample with words that had Intervention Focus AAE Features, pre- to post-assessment.

Figure 4.58: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student C2



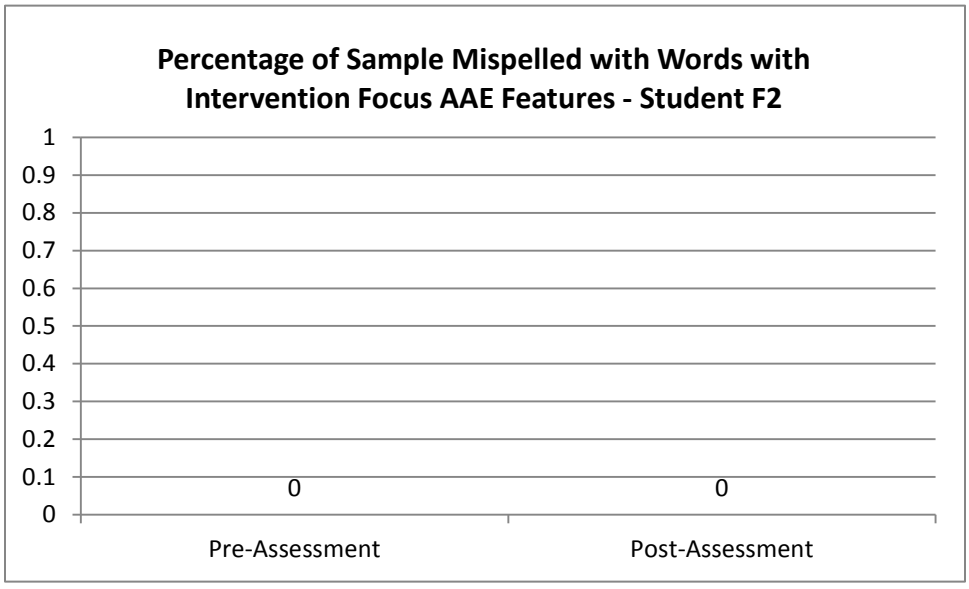
Student C2 misspelled 24% less of the writing sample with words that had Intervention Focus AAE Features, pre- to post-assessment.

Figure 4.59: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student D2



Student D2 misspelled 6% less of the writing sample with words that had Intervention Focus AAE Features, pre- to post-assessment.

Figure 4.60: Percent of Writing Sample Misspelled with Words with Intervention Focus AAE Features – Student F2



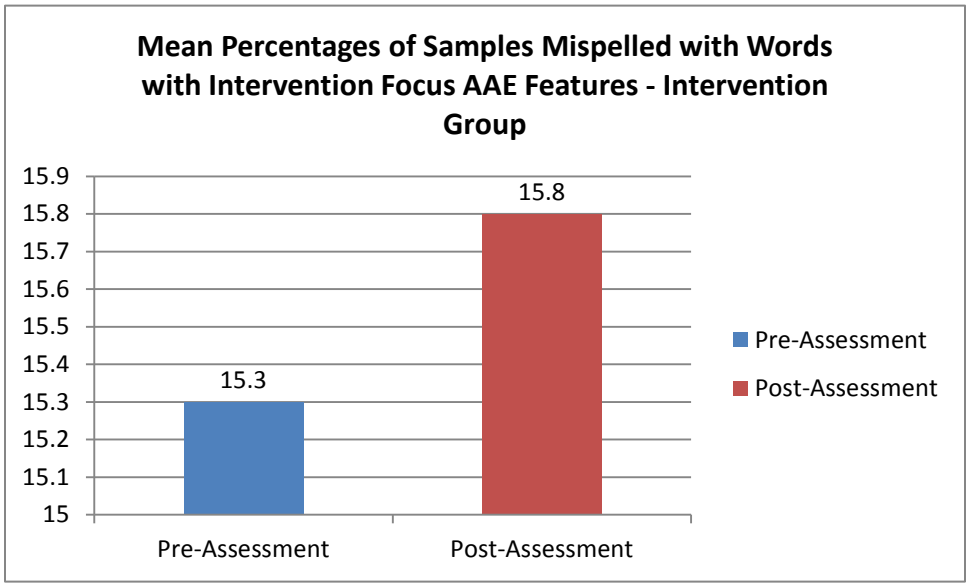
Student F2 did not misspell any words with Intervention Focus AAE Features in either the pre- or post-assessment writing sample.

Table 4.27: Mean Percentages of Writing Samples Misspelled with Words with Intervention Focus AAE Features

Group	Pre-Assessment	Post-Assessment	Change
Intervention	15.3%	15.8%	+.5%
Control	15.8%	9.5%	-6.3%

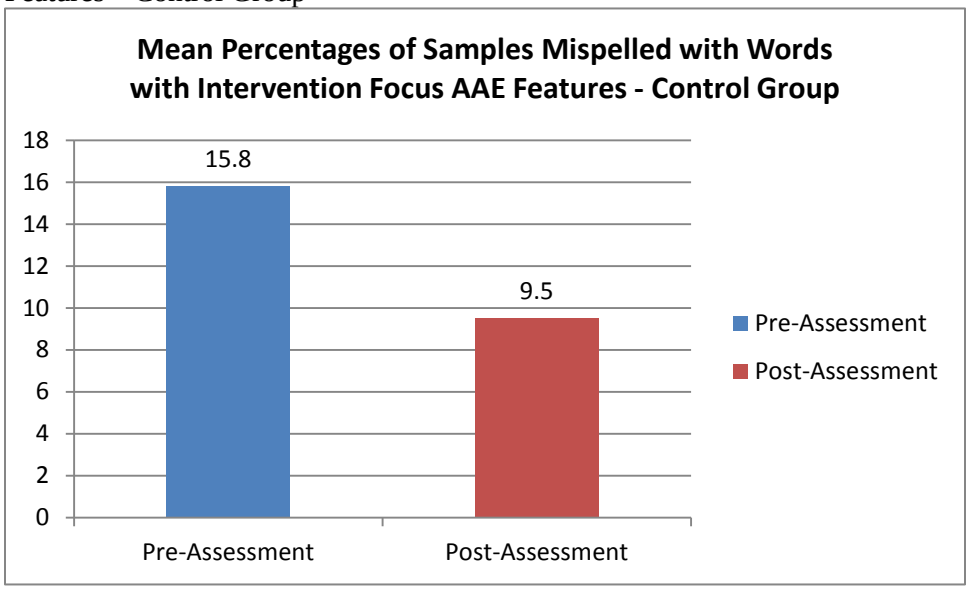
The mean percentage of misspellings of words with Intervention Focus AAE Features in the writing sample was an additional .5%, pre- to post-assessment, for the intervention group and 6.3% fewer misspellings for the control group.

Figure 4.61: Mean Percentages of Writing Samples Misspelled with Words with Intervention Focus AAE Features – Intervention Group



The students in the intervention group misspelled 15.3% of the writing sample with words that had Intervention Focus AAE Features on the pre-assessment and 15.8% on the post-assessment.

Figure 4.62: Mean Percentages of Writing Samples Misspelled with Words with Intervention Focus AAE Features – Control Group



The students in the control group misspelled 15.8% of the writing sample with words that had Intervention Focus AAE Features on the pre-assessment and 9.5% on the post-assessment.

Data on Misspellings: Dictated Words

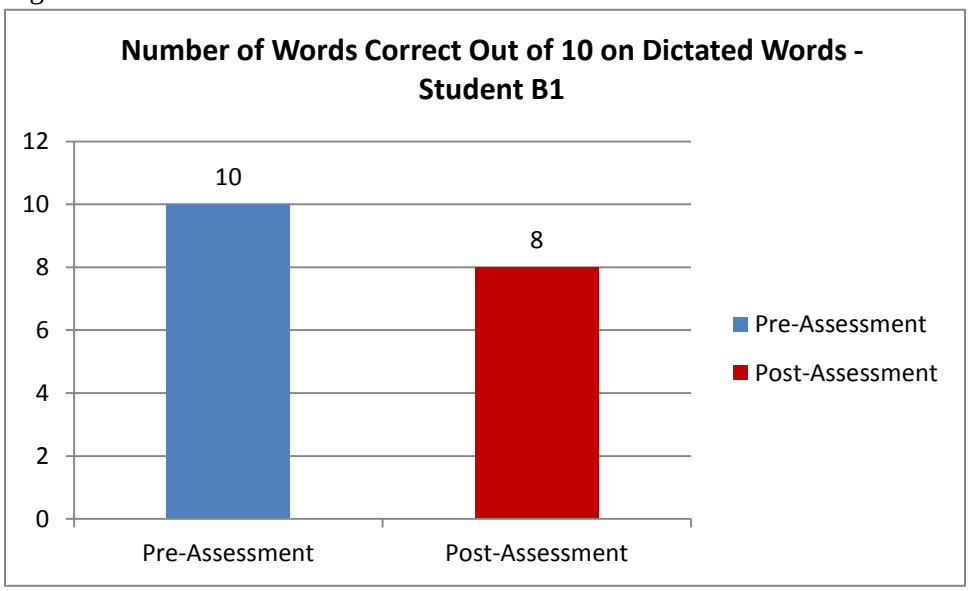
Data on misspellings on the dictated words are presented in Tables 4.28-4.30 and Figures 4.63-4.72, along with an analysis of the data.

Table 4.28: Misspellings on Dictated Words: Number of Words Correct Out of 10 – Intervention Students

Intervention Student	Pre-Assessment	Post-Assessment	Change
B1	10	8	-2
C1	7	9	+2
D1	7	8	+1
F1	7	7	0

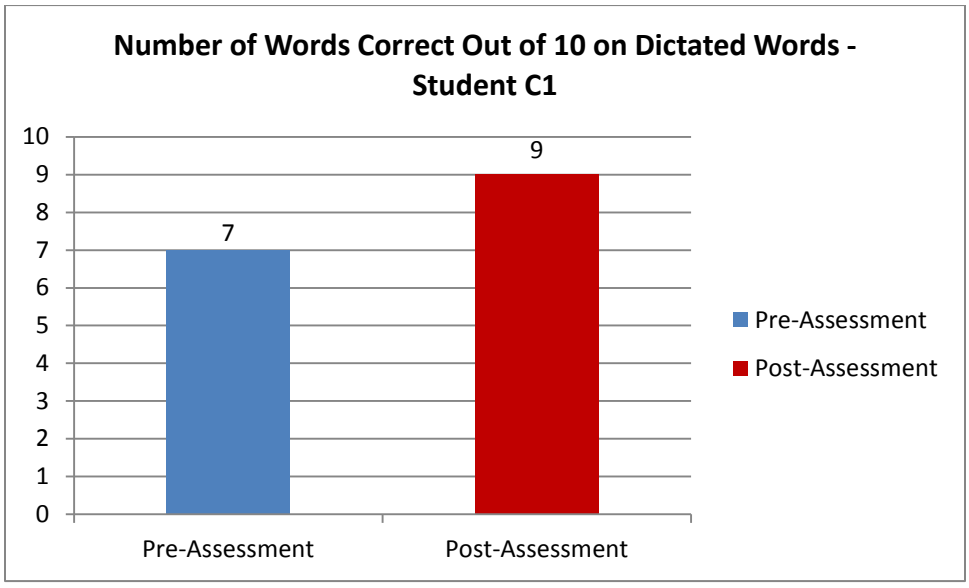
The intervention students' misspellings on the dictated words, pre- to post-assessment, ranged from two fewer words correct to two additional words correct.

Figure 4.63: Number of Words Correct on Dictated Words – Student B1



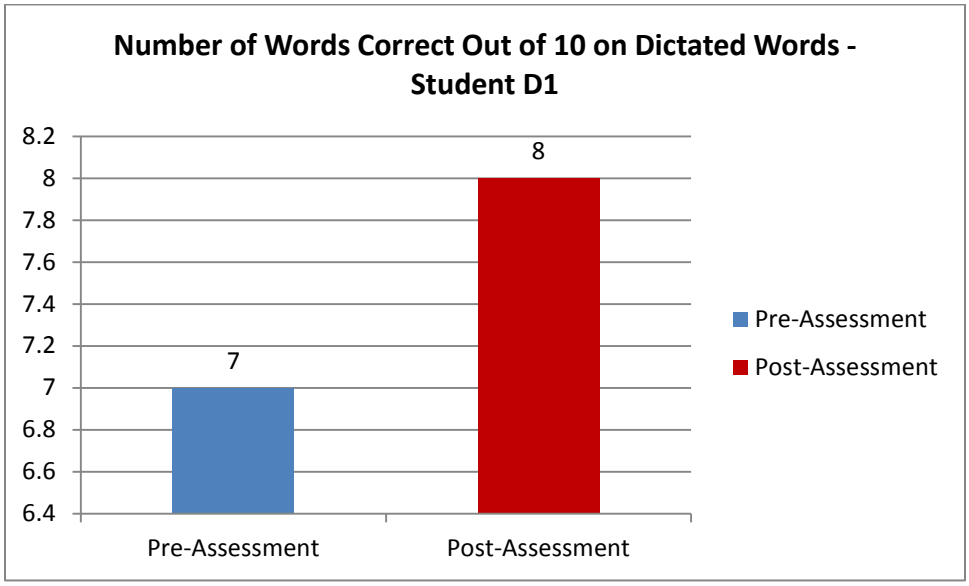
Student B1 had two fewer words correct, pre- to post-assessment, on the dictated words.

Figure 4.64: Number of Words Correct on Dictated Words – Student C1



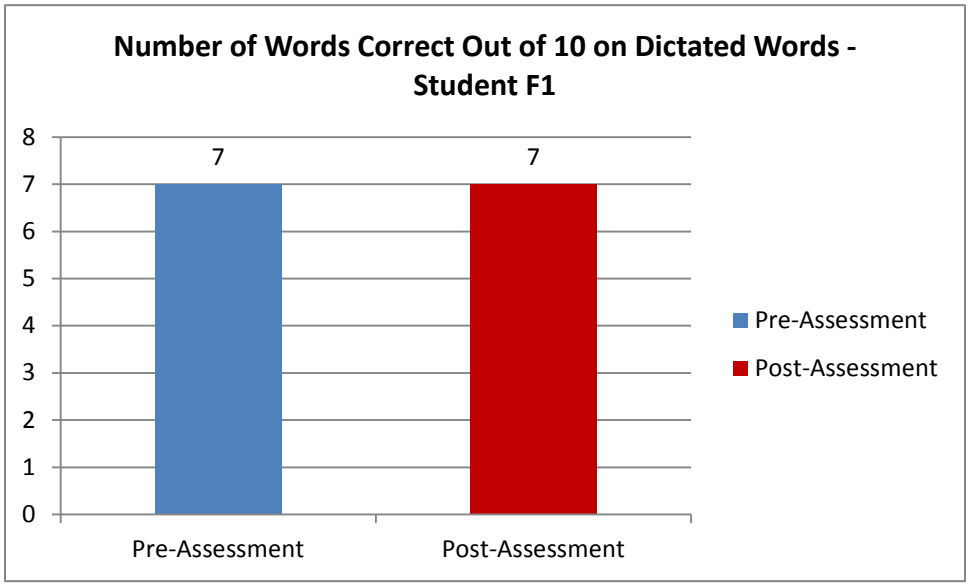
Student C1 had two additional words correct, pre- to post-assessment, on the dictated words.

Figure 4.65: Number of Words Correct on Dictated Words – Student D1



Student D1 had one additional word correct, pre- to post-assessment, on the dictated words.

Figure 4.66: Number of Words Correct on Dictated Words – Student F1



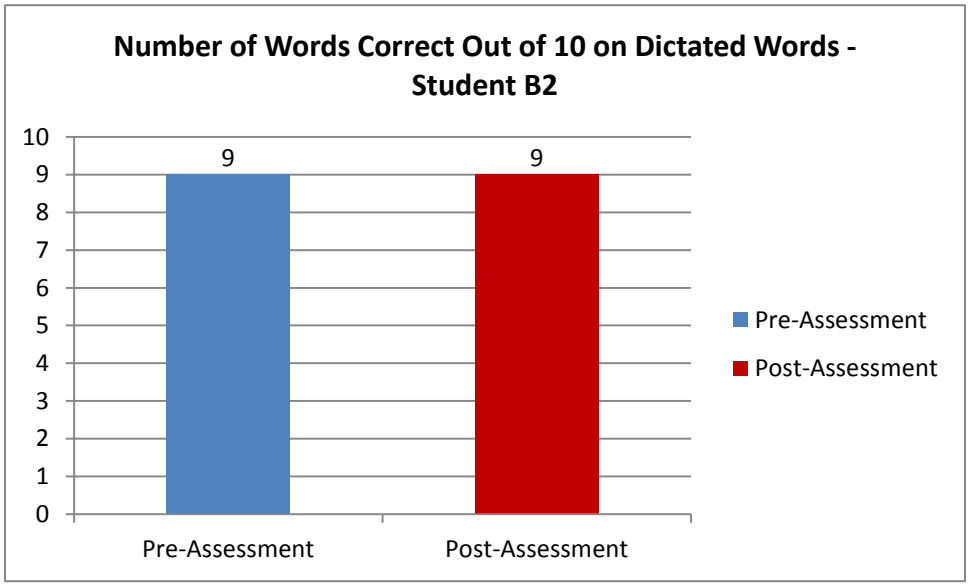
Student F1 had a score of 7 words correct on both the pre- and post-assessments of dictated words.

Table 4.29: Misspellings on Dictated Words: Number of Words Correct Out of 10 – Control Students

Control Student	Pre-Assessment	Post-Assessment	Change
B2	9	9	0
C2	4	6	+2
D2	9	9	0
F2	8	7	-1

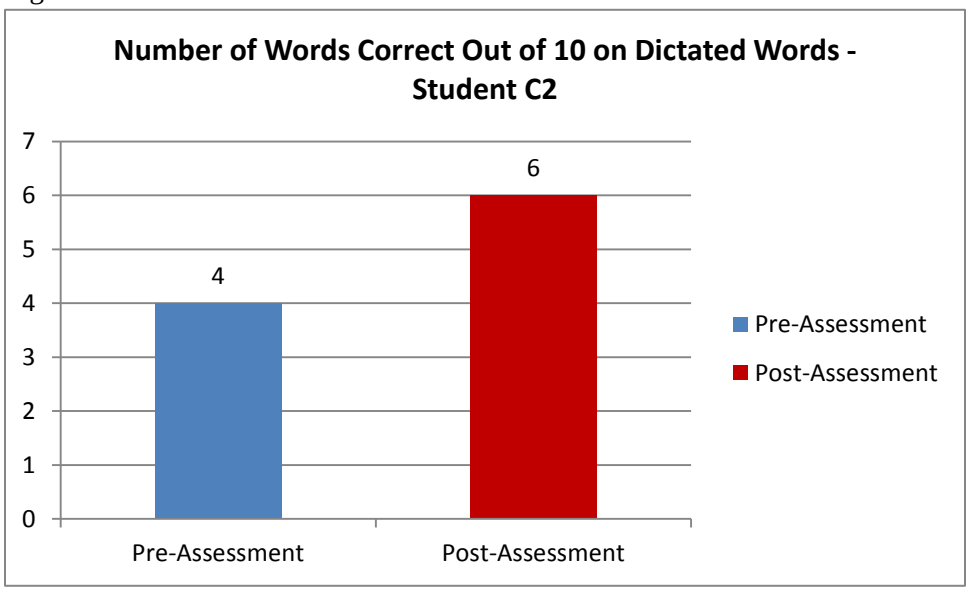
The control students' misspellings on the dictated words, pre- to post-assessment, ranged from one less word correct to two additional words correct.

Figure 4.67: Number of Words Correct on Dictated Words – Student B2



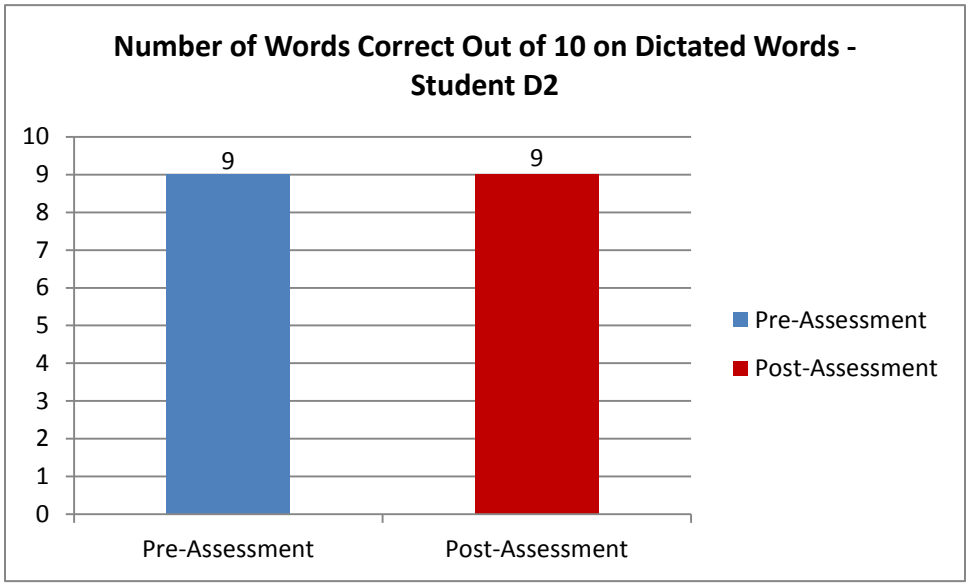
Student B2 had a score of 9 words correct on both the pre- and post-assessments of dictated words.

Figure 4.68: Number of Words Correct on Dictated Words – Student C2



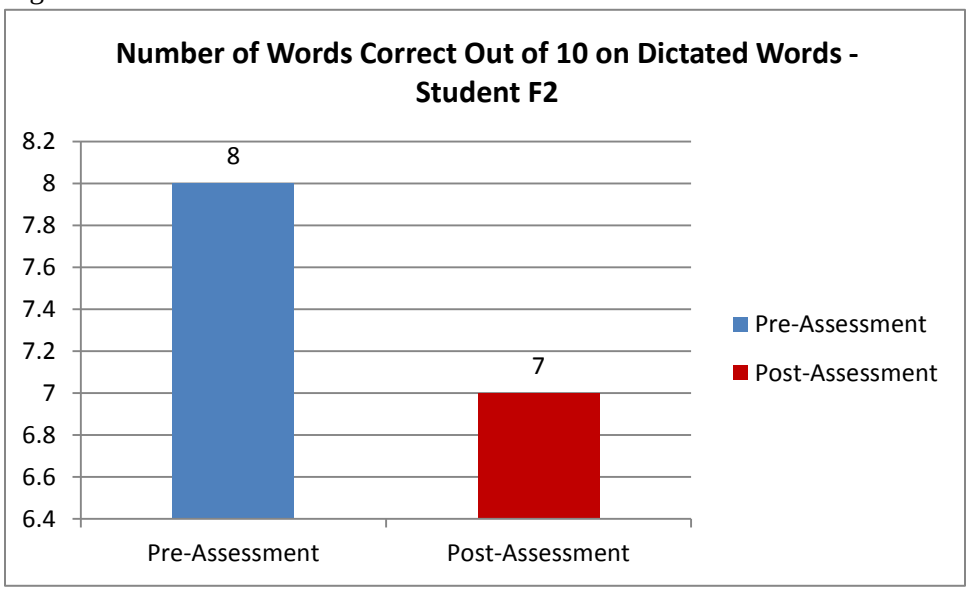
Student C2 had two additional words correct, pre- to post-assessment, on the dictated words.

Figure 4.69: Number of Words Correct on Dictated Words – Student D2



Student B2 had a score of 9 words correct on both the pre- and post-assessments of dictated words.

Figure 4.70: Number of Words Correct on Dictated Words – Student F2



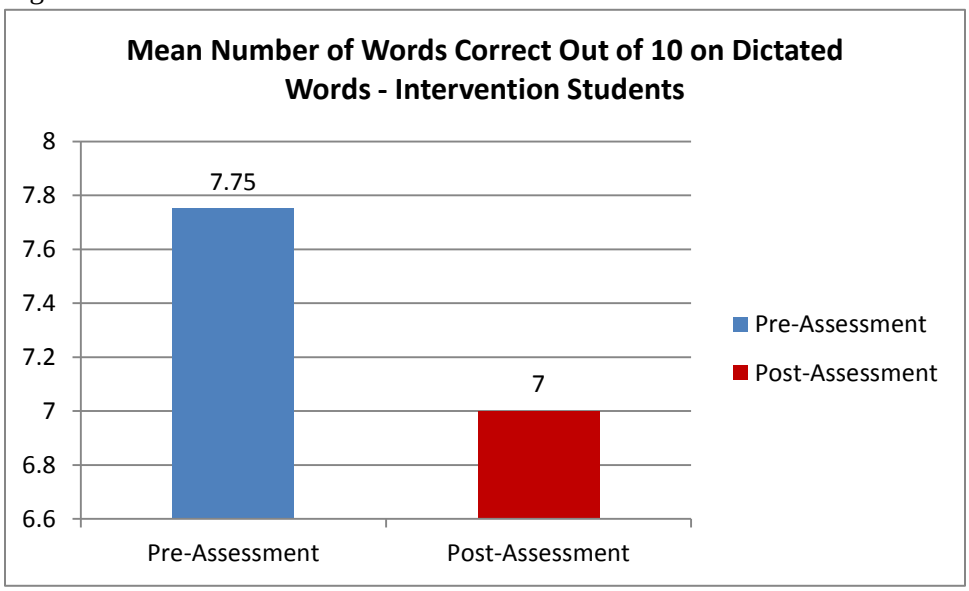
Student F2 had one less word correct, pre- to post-assessment, on the dictated words.

Table 4.30: Mean Numbers of Words Correct on Dictated Words

Group	Pre-Assessment	Post-Assessment	Change
Intervention	7.75 words	7 words	-.75 words
Control	7.5 words	7.75 words	+.25 words

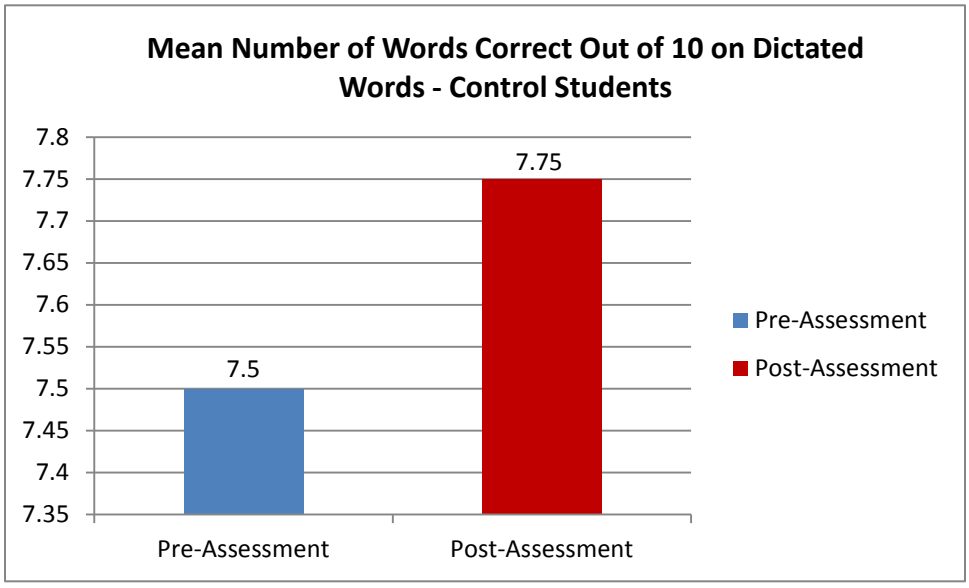
The mean number of words correct on the dictated words, pre- to post-assessment, was .75 fewer words for intervention group and an additional .25 words for the control group.

Figure 4.71: Mean Number of Words Correct on Dictated Words – Intervention Students



The intervention group went from a mean of 7.75 words correct to 7 words correct, pre- to post-assessment.

Figure 4.72: Mean Number of Words Correct on Dictated Words –Control Students



The control group went from a mean of 7.5 words correct to 7.75 words correct, pre- to post-assessment.

Conclusions

This study provided a considerable amount of data on word accuracy with regards to miscues. Individual student data on miscues varied widely, although the intervention group showed more consistency than the control group. When the scores were averaged, the mean pre- to post-assessment data reflected a 2.25% growth in overall miscues for the intervention students and a 4.5% decrease for the control students. A miscue analysis revealed the percentage of the passage miscued on words with Intervention Focus AAE Features increased 1.5% for the intervention students and decreased 3.3% for the control students. In both comparisons, miscues increased for the intervention students and decreased for the control students, indicating greater word accuracy for the control group.

As with miscues, individual pre- to post-assessment data on self-corrections were more consistent amongst the intervention than control students. Calculations of mean pre- to post-assessment percentages showed the intervention students had 1.25% fewer overall self-corrections, while the control students' decreased 1.8%. In addition, analysis of the self-corrected words revealed the intervention students self-corrected 1.1% fewer words with Intervention Focus AAE Features on the post-assessments, while the control students self-corrected .37% more words in this category. While the intervention students dropped in self-corrections in both comparisons, the control students decreased in overall self-corrections, but increased on words with Intervention Focus AAE Features.

Like the data on miscues and self-corrections, misspellings on writing samples were noted and calculated as a percentage of the whole. Examination of misspelled words identified those with Intervention Focus AAE Features for additional analysis. Data on mean percentages, pre-

to post-assessment, indicated intervention students' overall misspellings increased by 1.5% while control students' decreased by 2.5%. Also, misspellings on words with Intervention Focus AAE Features increased .5% for intervention students, but decreased 6.3% for control students. In comparisons of overall misspellings and those with Intervention Focus AAE Features, intervention students' misspellings increased while control students' decreased.

In addition to data from the writing samples, misspellings on a set of dictated words were scored and recorded as the number correct out of ten; all words had one Intervention Focus AAE Feature. Calculation of mean intervention and control student data revealed that intervention students had .75 less word correct on post-assessments, while control students had .25 more word correct. Comparisons of intervention and control group pre- and post-assessment scores illustrated that control students increased slightly in word accuracy while intervention students decreased.

In conclusion, data from this study indicated changes in pre- to post-assessment scores on overall and potentially AAE-influenced miscues, self-corrections, and misspellings. The results showed that intervention and control students did not show growth to the same extent or in the same direction. This will be discussed in the following chapter, along with connections to existing research, the strengths and limitations of the study, and recommendations for future research.

CHAPTER FIVE - CONCLUSIONS

The goal of this action research was to examine the impact of oral and written dialect-shifting instruction on the oral reading and written word accuracy of African American English (AAE) - speaking second graders. The intervention involved working with a group of four students for thirty minutes a day, four times a week for four weeks, while a control group of four students received no instruction. This chapter presents connections to existing research and the Common Core State Standards (Common Core State Standards Initiative, 2010), an explanation of the results, the strengths and limitations of the research, and recommendations for future instruction and research.

Connections to Existing Research

Fostering proficient readers has been a focus of national and state attention for many years. In April of 2000, the National Reading Panel (NRP), under the auspices of the National Institute of Child Health and Human Development (NICHD), a division of the National Institutes of Health (NIH), issued a report titled "Teaching Children to Read" (National Reading Panel, 2000). In this report, the NRP detailed five components that must be mastered to be a proficient reader: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Of these, phonemic awareness, phonics, and fluency factored strongly in this action research. The intervention lessons were designed to increase students' phonemic awareness by listening, counting, and marking a space for all phonemes in the Intervention Focus words. Moreover, the lessons served to reinforce students' phonics skills through repeated practice of matching phonemes to graphemes and subsequent feedback regarding their attempts. In addition, fluency, defined as reading with appropriate speed, proper intonation, and accuracy (Caldwell, 2008; National Institutes of Health, 2006; Rasinski, 2003) was at the center of the data collection. In

recording miscues and misspellings, the researcher was noting word accuracy in oral reading and writing tasks. Further analysis of this data highlighted the potential impact of AAE on student performance.

In addition to a focus at the national level, the importance of phonemic awareness, phonics, and fluency in the elementary grades are underscored in the Common Core State Standards for English Language Arts (Common Core State Standards Initiative, 2010). The expectation for phonemic awareness begins at the kindergarten level: foundational reading skills standard RF.K.2 states that students should show an understanding of phonemes in spoken words, syllables, and sounds. There are also expectations for phonics at this level: standard RF.K.3 says that kindergartners should know and apply grade-level phonics, including one-to-one letter-sound correspondences, and be able to decode words using word analysis skills. These standards begin at the kindergarten level and extend through fifth grade. Meanwhile, another foundational element, fluency, is first noted at the first grade level: standard RF.1.4 says that students should read with the accuracy and fluency necessary to support their comprehension; this standard also extends through fifth grade (Common Core State Standards Initiative, 2010). The skills emphasized in this action research have a solid connection to the Common Core State Standards in the area of foundational reading skills.

Another reading matter of national importance was reported by the National Center for Education Statistics (NCES) in 2009, following the National Assessment of Educational Progress (NAEP): the persistent and significant gap in reading achievement between Black and White students (Flowers, 2007; National Center for Education Statistics, 2009; Wheeler & Swords, 2004). While the reasons for this are numerous and multifaceted (Wheeler & Swords, 2004), studies have shown that phonological differences between African American English (AAE) and

Standard American English (SAE) make it more difficult for AAE-speaking children to learn sound-spelling correspondences, and impact phoneme manipulation, word recognition, and decoding strategies (Bryant, Apel, & Wilkinson, 2007; Hart et al, 1980; Kohler et al., 2007; Sligh & Conners, 2003; Wheeler & Swords, 2004). Further research has shown that higher densities of AAE have been correlated with lower levels of reading achievement (Craig, et al., 2009; Wheeler & Swords, 2004). In addition, studies on dialect-shifting reveal that those students who shift effectively from AAE to SAE score significantly higher on measures of reading, writing, and vocabulary achievement (Compton-Lilly, 2005; Craig & Washington, 2004; Craig et al., 2009; Fogel & Ehri, 2000; Wheeler & Swords, 2004). However, research indicates that 33% of AAE-speaking second graders do not learn to dialect-shift on their own (Sibley, Brown, Rogers, Washington, Edwards, MacDonald, & Seidenberg, in preparation). Thus, explicit instruction in dialect-shifting may be necessary if AAE-speaking students are to achieve in reading at rates that are commensurate with their SAE-speaking peers (Wheeler & Swords, 2004). The intervention in this action research was designed to help AAE-speaking students shift from AAE to SAE through instruction in matching phonemes to graphemes with words that have features that are commonly modified in AAE. Research supports the combined instruction of phonemes and graphemes in strengthening phonemic awareness, decoding skills, spelling and accuracy in reading (Grace, 2007). In fact, explicit, small-group instruction in phonemic awareness and decoding has proven effective in helping students who had previously lagged behind their peers make significant gains in these areas (Grace, 2007). Explicit and focused instruction in matching phonemes and graphemes, thus helping students shift from AAE to SAE for reading and writing tasks, could begin to close the gap in reading achievement for some AAE-speaking students.

Explanation of Results

The goal of this intervention was to determine if explicit oral and written instruction in phoneme-grapheme matching increased the oral and written word accuracy of AAE-speaking second graders. The study yielded data from intervention and control group participants on word accuracy with regards to miscues, self-corrections, and misspellings. In addition, data were generated on the potential effects of AAE on word accuracy.

Pre- to post-assessment data showed incremental movement for both groups of students, however the movement was in the opposite directions: the control group seemed to make growth in word accuracy while the intervention group experienced a decrease. To illustrate, the control group had a reduction in the number of all miscues, overall self-corrections, and all misspellings on the writing sample. Only the components of self-corrections on words with Intervention Focus AAE Features and misspellings on dictated words reflected a slight increase in mean scores. Meanwhile, the intervention group experienced an increase in four of the seven areas assessed: overall and Intervention Focus AAE Feature miscues and misspellings. However, these students decreased in all self-corrections and misspellings on dictated words. Overall, the control group appeared to make positive growth while the scores of the intervention group indicated a general decrease in their word accuracy.

The results go counter to the hypothesis that the intervention would increase students' oral and written word accuracy, but careful consideration of the data has illuminated a few key points. First, with a more significant application component, the intervention students might have taken their skills to a deeper level of understanding and shown greater growth. If this study were to be repeated, a portion of each intervention lesson would be utilized for applying the phoneme-grapheme matching skills to oral reading and writing tasks to solidify the learning

transaction. Furthermore, the one score that reflected positive growth for the intervention group and a decrease for the control group was the assessment that most closely matched the intervention lessons: dictated words. In a future study, all assessments would more closely match the skills taught in the intervention. This might mean fewer assessments with a more focused purpose, but it would increase the validity of the study. Finally, the intervention was not long enough to effect enough change in the intervention students. A future study of this kind should last at least 6-8 weeks, if not longer. Although the results were unexpected, they brought important insight to the research design with regards to the structure, components, duration of the intervention, and validity of the assessments.

Strengths and Limitations

This study had a strong research base, from which the guiding question, assessment tools, and intervention were drawn. The research focused on one aspect of reading achievement as it pertains to African American children: word accuracy in AAE-speaking second graders. Studies were reviewed by national organizations and researchers who have examined these topics for decades: analyzing how AAE-speaking children manage the foundational elements of reading; the impact of AAE on reading achievement; and how students' ability to dialect-shift correlates with their success in reading. In addition, the measurement instruments chosen for this study were well-established, and had strong reliability and construct validity. Measures of Academic Progress (MAP; Northwest Evaluation Association, 2011) is a nationally-normed reading assessment with evidence of strong reliability and validity (Northwest Evaluation Association, 2011). It was used to determine reading levels for the participants in the study. The Diagnostic Evaluation of Language Variance (DELV; Seymour, Roeper, & deVilliers, 2003) is a nationally-normed assessment administered to ensure that participants were speakers of AAE. Reliability

and validity of this assessment were determined to be adequate to good in numerous studies. The Qualitative Reading Inventory – 5 (QRI-5; Leslie & Caldwell, 2011) was given to elicit oral reading, assess miscues, and calculate word accuracy. Many studies have been done that confirm the reliability and validity of the QRI-5 as a consistent and statistically significant source of leveled reading passages and measure of comprehension and word accuracy (Leslie & Caldwell, 2011). Finally, the intervention was based on Kathryn Grace's *Phonics and Spelling Through Phoneme-Grapheme Mapping* (2003). Grace's framework is backed by solid research on teaching phonologic and orthographic relationships; the importance of explicit instruction in phonemic awareness and decoding; and the value of having students to apply their phonemic knowledge to spelling and reading tasks (Grace, 2007). This study was supported by a substantial range of data uncovered by researchers who have spent decades investigating reading achievement.

In addition to its strong research base, this study was carefully designed to minimize the effects of extraneous variables. First, the research was done during the summer so there would be no effects from classroom reading instruction on the dependent variables. Also, dyads of students from the intervention and control groups were matched according to dialect, grade level, SES, and scores and growth patterns on a standardized reading assessment. This was also done to minimize the effects of extraneous variables on the dependent variables. Several steps were taken to be able to maintain, as much as possible, that changes on the pre- and post-assessment scores were due to the intervention.

The statistical significance of the data was limited by the fact that the study had a small sample size. Thus, t tests could not be done to determine whether the results were statistically significant. Having at least 30 participants in the intervention and control groups would have

been more statistically stable and required a smaller t value. However, because only 8 children participated, the assertion that the results would probably be reproduced if the study were repeated with another group cannot be made (Ravid, 2005).

The intervention in this study was limited to fifteen half-hour sessions over the course of four weeks. While incremental progress was made with some of the participants, this was not enough time for the intervention to effect significant change. The recommended length of time for a similar intervention, *Road to the Code: A Phonological Awareness Program for Young Children* is 44 sessions over the course of 11 weeks (Blachman, Ball, Black, & Tangel, 2000). Administering the intervention in this action research for at least 6-8 weeks, if not longer, might have resulted in more significant change in participants' pre- to post-assessment scores on word accuracy.

Although the intervention lasted four short weeks, there were challenges in terms of commitment to the study and consistency of attendance. Originally, the parents of twelve students gave written and oral permission for their children to participate in the study. Pre-assessments were done, and arrangements were made to work with the six children in the intervention group. However, when the intervention began, only four of the six children showed for the lesson. Despite many attempts to communicate and reconnect with the parents of the other students, the study went forward with the remaining four intervention participants. Further, there was spotty attendance with two of those students, although their lessons were made up. This presented another challenge to the integrity of the study: make-up sessions were held after the daily lessons, resulting in sessions that were 45-50 minutes long for those students who had lessons to make up. The longer lesson time may have resulted in a decline in students' attention

and efficacy of learning. A larger number of participants and more consistent attendance might have resulted in data that reflected greater impact from the intervention.

There are two layers of data in this research, one of which has limiting factors. The first layer is a set of statistics on participants' miscues on oral reading passages and misspellings on dictated words and writing samples. The second layer, with limited applicability, is data on words miscued and misspelled due, potentially, to dialect modifications. In order to discern with greater certainty whether participants' miscues and misspellings were attributable to dialect differences or decoding problems, several steps would have to have been taken. First, a spontaneous oral language sample would have been recorded, transcribed, and analyzed for language patterns. Then, the pre- and post-assessment and intervention sessions would have been recorded, transcribed, and analyzed. Finally, the oral reading and writing assessment data would have been compared to the baseline inventory and used to assess whether miscues and misspellings were attributable to dialect differences or decoding difficulties (O'Keefe, personal communication). A language inventory and recordings of all sessions would have allowed deeper analysis of students' language patterns, making the miscue and misspelling data more reliable, valid, and relevant.

Recommendations

Future investigation into the impact of instruction in phoneme-grapheme matching on the oral and written word accuracy of AAE-speaking elementary students could yield significant data. The following recommendations for future studies are suggested:

Spontaneous oral language samples should be recorded from each participant, then transcribed and analyzed to create an index of discourse and language patterns. Also, assessment

and intervention sessions would be audio recorded, transcribed, and analyzed to determine whether miscues and misspellings were due to dialect differences or decoding problems (O'Keefe, personal communication, 2012). Examination of students' AAE and assessment information at this level would bring greater reliability, validity, and applicability to the data.

Greater applicability of this study could be gained with a larger sample size, and sufficient number of weeks for the intervention. Having 30-40 participants in a future study would allow statistical analyses to be done, and statistical significance of the results could be determined (Ravid, 2005). Also, the intervention should be administered for at least 6-8 weeks to have a more substantial effect on word accuracy. In fact, a similar intervention described in *Road to the Code: A Phonological Awareness Program for Young Children* (Blachman et al., 2000) recommends 44 sessions of instruction over the course of 11 weeks. A larger sample size and adequate length for the intervention would produce more significant results in a similar study.

Future research should also go into educating teachers about AAE in order for them to best serve the needs of their AAE-speaking students. First, teachers need to understand the importance of valuing students' home languages, and know that their perceptions of AAE can negatively impact student learning (Flowers, 2007; Wheeler & Swords, 2004). Educators would benefit from a solid knowledge base of the features of AAE (Craig, et al., 2003, Pearson, Velleman, Bryant, & Charko, 2009) and awareness of the stance that AAE-speaking students are learning SAE as a second dialect (Pearson et al., 2009). Further, teachers should learn to facilitate students' dialect-shifting when appropriate, as this is correlated with higher achievement in reading (Wheeler & Swords, 2004). Many questions in this vein remain to be investigated: Where is the line between being bidialectal and bilingual? Could every student who speaks a dialect other than SAE be considered bidialectal or bilingual? How could established

instructional strategies currently used with English Language Learners (ELLs) benefit bidialectal students, especially in the areas of reading and writing? Continued examination of AAE, and its impact on reading and writing in SAE, could produce considerable change in the perspective of educators.

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